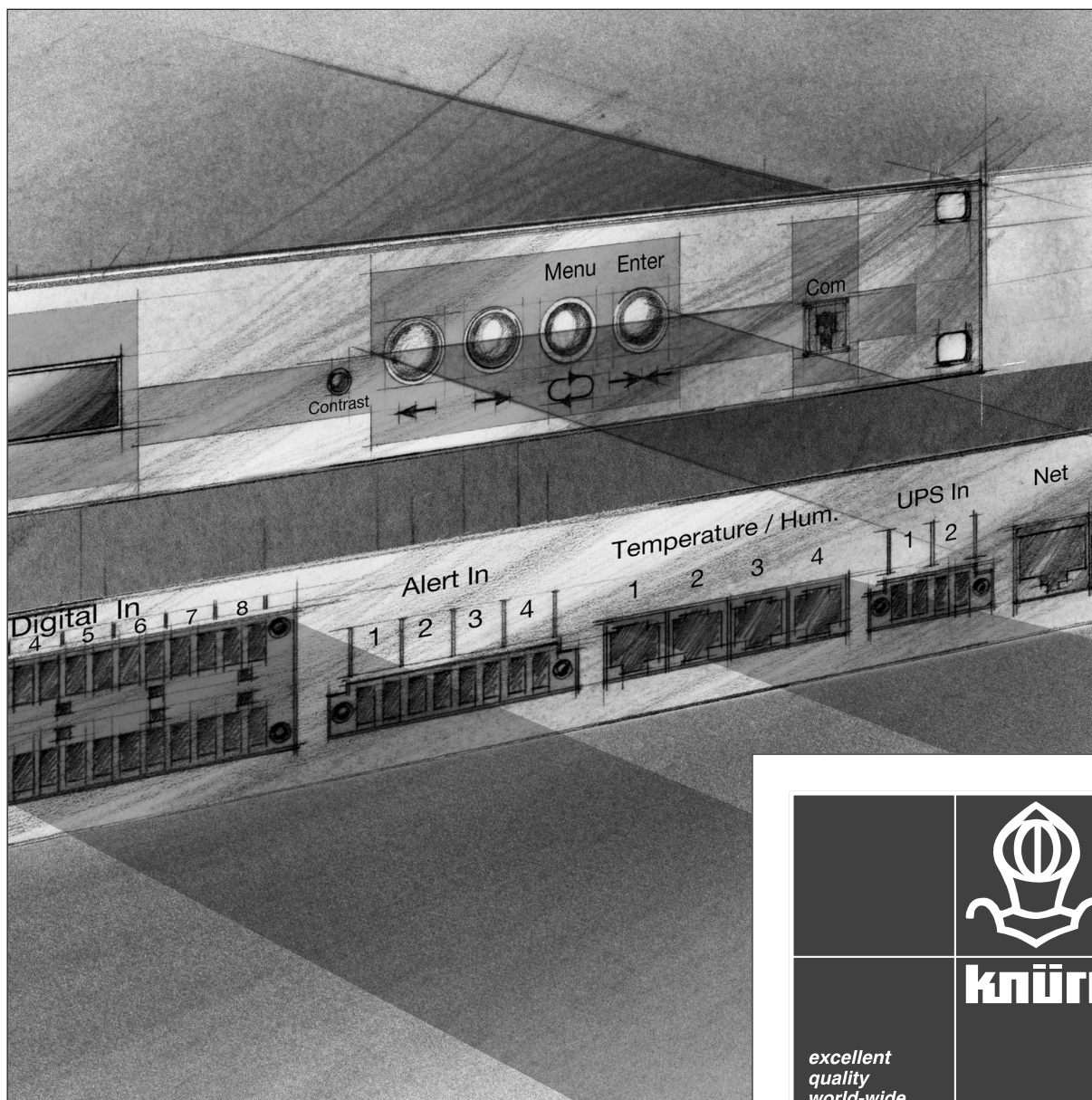


RackMonitoringSystem



Anwenderhandbuch Schranküberwachung User's Manual for Rack Monitoring System Manuel utilisateur du surveillance de baie



excellent
quality
world-wide

Validity of this manual

This User's Manual applies exclusively to the RMS Rack Monitoring System.

Software version: 1.4b3

RMS performance features

- Illuminated LC display for plain text displays
- 4 keys on the front of the device
- Measurement and monitoring of temperature, humidity, door contact (access), vibration, movement (infrared room surveillance), smoke, mains voltage
- Flexible filter structure for uncomplicated realisation of even complex signal conditions
- Operation and display of alarms via LC display, serial interface or network (Telnet and SNMP)
- Different interfaces for sensors and data transmission, digital inputs, switching outputs

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1.1 General information

Normal use

The RMS is supplied in flawless condition in terms of safety.

Knürr AG can only guarantee the safety, reliability and performance of the device if

- modifications, conversions or repairs are carried out only by persons authorised by the manufacturer,
- the electrical installation of the installation room conforms with the general requirements according to IEC,
- the device is operated in an office environment (class 3K2 according to EN 60721). More stringent requirements apply to rooms with a higher degree of pollution.
- the device is operated at a maximum ambient temperature of +35°C.

Copyright

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Technical status

Technical status 02/1999

Knürr AG reserves the right, without prior notice,

- to make changes to the design and components and, instead of the stated components, to use equivalent other components in the pursuit of technical progress,
- to change the performance features of the software,
- to change the information in this Manual.

Liability

Knürr AG accepts no liability for the complete correctness of the information. In particular, no liability whatsoever is accepted for damage or injury caused as a result of the use of the device.

1.2 Safe working

1.2.1 Highlighted text



Danger!



Caution!



Note

Important passages which must be observed are highlighted as follows in these instructions:

Calls for safety measures to protect the health of persons affected.

Highlights what must be done or not done in order not to damage material assets.

Recommends actions and provides tips for trouble-free, fast handling of the device.

1.2.2

General safety information

Danger-free working with the RMS is possible only if all of this User's Manual is read and the instructions and information contained in it are observed.

Please also observe other documentation by manufacturers of connected devices.

- Always keep the User's Manual within reach by the device.
- Work only with rack monitoring in technically flawless condition. Have damage and deficiencies remedied immediately by authorised persons.
- Only use the supplied mains cable.
- When plugging in and unplugging the mains plug,
 - never pull the cable
 - never touch the plug with wet hands
- When connecting devices to the cable clamps, always observe the VDE regulations!
- Do not convert or repair the device yourself!
- Use only original accessories.
- If liquids are spilled on the device, immediately unplug the mains cable from the mains.
Please contact your specialist dealer.
- Protect from heat.
Heat can damage both parts of the outside of the device and internal circuits and components.
- To clean the device, use only cloths moistened with water or washing-up liquid. Alcohol, thinners or similar chemicals damage the surface of the enclosure.

1.2.3

Disposal

The device contains a lithium battery on the circuit board and toxic substances in the LC display.

- The device must be disposed of properly.

1.3

Warranty

Knürr AG offers a **warranty of 6 months** on all mechanical and electrical components. The warranty applies from the date of delivery. For further details, please see the General Terms of Business of Knürr AG.

Lapse of warranty

The warranty lapses if improper modifications are made to the device.

1.4 Service

Hotline



+49 - (0) 18 05 - 67 16 03

Monday to thursday 9:00 to 12:00, 14:00 to 17:00 (CEST),
friday 9:00 to 12:00 (CEST).

E-Mail

product-support@knuerr-danetec.de

- To receive a speedy reply, please provide the following information:
 - Device type
 - Serial number
 - Software version
 - Configuration file
 - Description of problem
 - Please also leave your telephone number.
- You will receive a qualified reply by e-mail or telephone.

on the Internet

URL: <ftp://ftp.knuerr-danetec.de/pub/product-support/>

In addition to current information and software versions, you will also find here the latest FAQs for your rack monitoring system.

1.5 Standards, regulations and licence

Licence

The Knürr AG RMS has been built and tested in accordance with the relevant guidelines. In connection with installation in a terminal (for example, a rack), the additional requirements in accordance with IEC 950 must be observed and complied with.

The RMS conforms to the safety requirements of the EU Directive on electromagnetic compatibility (EMC) (89/33/EEC) and the low voltage Directive (73/23/EEC).

Below is a list of the standards and regulations on which the RMS is based:

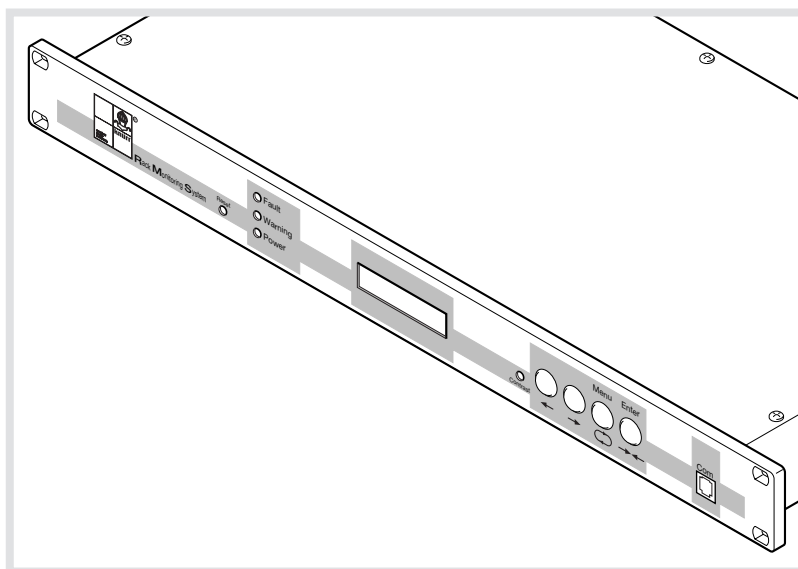
EN 55 022/Class B
EN 60 950 (IEC 950)
EN 61 000-4-2
EN 61 000-4-3

All LINUX source codes which were used to produce the product and are subject to the GPL (see GNU Public Licence ► **A4**) can be obtained for a service charge. This does not include the source codes of the RMS software itself. However, the LINUX sources are freely available, for example at URL: "<http://metalab.unc.edu/pub/Linux>".

2.1

Rack monitoring

The RMS monitors, protects and controls all the installations in network, switch cabinet and server racks and their environment.



Sensors

Local ambient conditions (for example, temperature or humidity) or operational statuses (for example fluctuations in mains voltage) can be detected via various sensors and inputs (► 2.2).

Displays

Signals are transmitted and data displayed on the device via an illuminated, 16-digit LC display, via a serial interface or via Ethernet via Telnet or SNMP.

Inputs and outputs

Digital inputs and switching outputs make it possible continuously to monitor the operating status and ambient conditions in the rack and to react to events.

Operation and configuration

The RMS is operated locally via 4 keys on the front. RMS inputs and settings can also take place decentrally both via the serial interface and via Telnet and SNMP.

The entire configuration of the system is permanently saved. Thus settings are retained even after a power failure or transportation.

Software

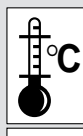
The operating software of the RMS is subject to continuous improvement and expansion. Updates can be loaded fast and easily at any time. The latest version is available on the Internet (► 1.4).

Connection options

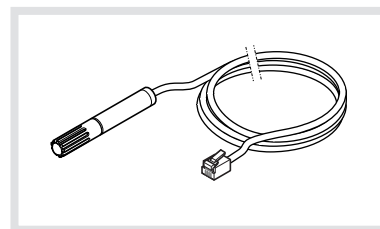
The RMS has a wide variety of connection options (► 3.3.1):

- Three mains monitoring connections (6-pole plug connector)
- Four digital, potential-free switching outputs (8-pole plug connector)
- Eight digital, potential-free inputs with 12 V auxiliary voltage (16-pole plug connector)
- Four digital, potential-free alarm inputs for the connection of differential signal lines (8-pole plug connector)
- Four modular jacks for temperature or humidity sensor (RJ11)
- Two potential-free UPS switching inputs (4-pole plug connector)
- Ethernet network connection (RJ45 – 10 base T)
- AUX serial interface (SUB-D, 9-pole) to control and monitor external devices (for example, chipcard reader, UPS, ...)
- COM serial interface (SUB-D, 9-pole) as terminal connection

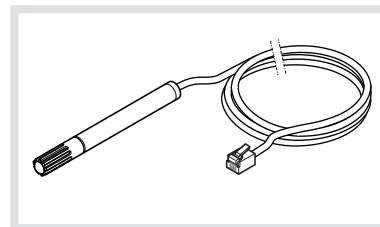
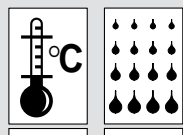
2.2 Sensors

Temperature
(digital)

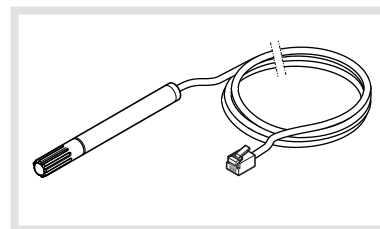
- Temperature range: 0 °C to 60 °C
- Measuring accuracy: ± 1 °C
- Recalibration not necessary
- Cable length: 4 m
- Maximum cable length: 20 m
- With mounting hardware

Humidity
(digital)

- Humidity range: 10 % to 90 % relative humidity at 0 °C to 60 °C
- Measuring accuracy: ± 3 % relative humidity
- Recalibration not necessary
- Cable length: 4 m
- Maximum cable length: 20 m
- With mounting hardware

Combined humidity and
temperature sensor (digital)

Combination of temperature and humidity sensor, equipment as above.

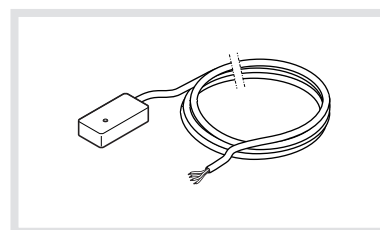


Vibration



Detects movements and vibrations of varying intensity.

- Adjustable sensitivity
- Cable length: 4 m
- Maximum cable length: 20 m
- With mounting hardware

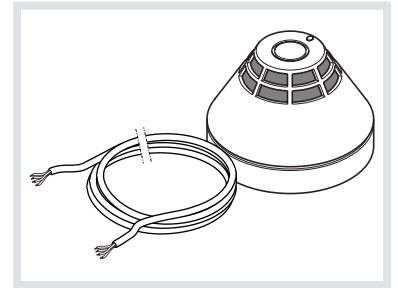


Smoke alarm

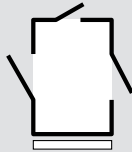


Optical smoke alarm with German insurance accreditation (VdS) for early detection of fires with the development of light smoke.

- Temperature range for deployment: -20 °C to 75 °C
- Cable length: 4 m
- Maximum cable length: 20 m
- With mounting hardware

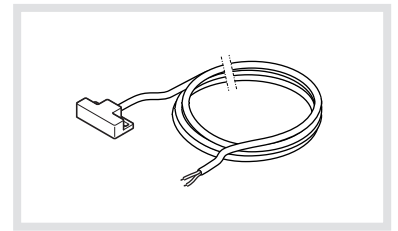


Door contact



Monitors access with a magnetic bridge sensor which responds to any magnetic material (no contact required).

- Also for monitoring side panels or cover
- Cable length: 4 m
- Maximum cable length: 20 m
- With mounting hardware



Chipcard reader

The chipcard reader is integrated in the door frame of the server cabinet.

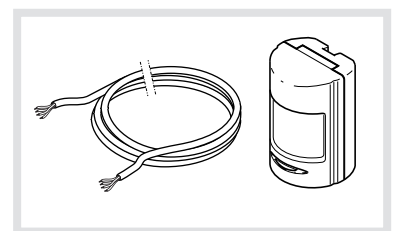
- It reads chipcards.
- It controls an electrical door opener using DIGITAL OUT 4 if the card is valid.
- It is connected to the AUX serial interface.



Infrared room surveillance

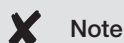
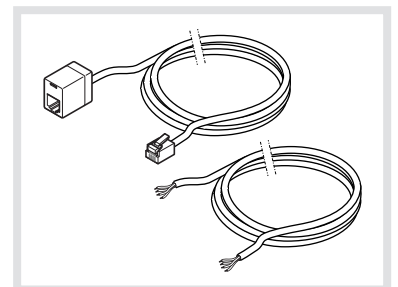
Detects movements in the surveillance area.

- Adjustable sensitivity
- Sabotage protection
- Cable length: 4 m
- Maximum cable length: 20 m
- With mounting hardware



Extension cable

- RJ11 cable for temperature or humidity sensors
Length: 5 m; 10 m; 15 m; 20 m
- 4-core sensor cable (for all other sensors)
Length: 5 m; 10 m; 15 m; 20 m



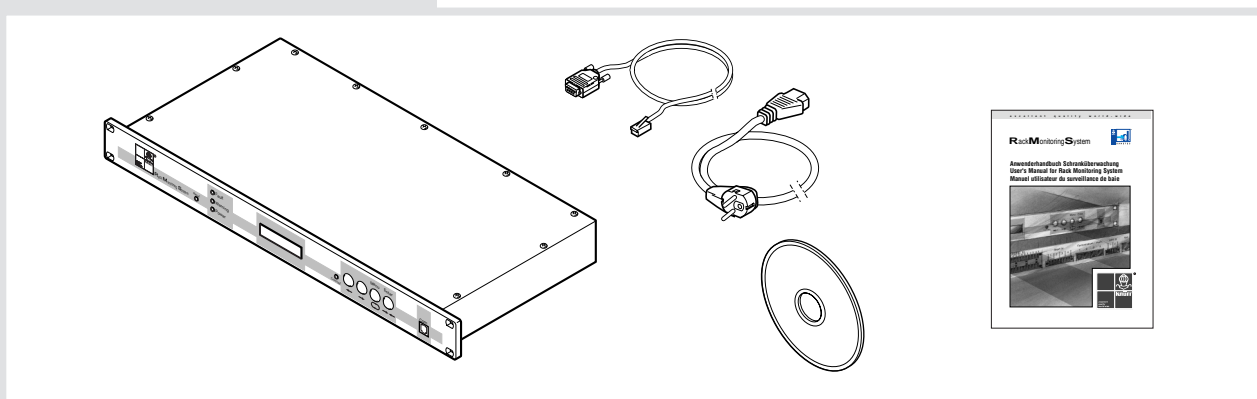
Note

Other sensors can be connected to DIGITAL IN, ALERT IN or UPS IN according to the requirements in 3.3.1.

3.1 Preparations

3.1.1 Check the supply schedule

- RMS
- Power cable
(for the country in question)
- User's Manual
- 6 plug connectors (not shown)
- Serial communication cable
(RJ11 connector to 9-pole sub-D socket)
- 10 cable links, stripped
(not shown)
- CD-ROM



Transport damage



Danger!

If the device has visible transport damage, it must not be taken into operation as its safety is no longer guaranteed.

- Immediately report transport damage to the carrier and the manufacturer.

3.1.2 Necessary accessories



Note

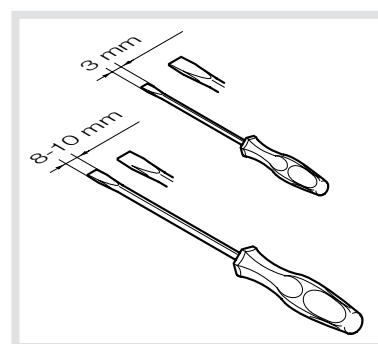
- Only use original accessories.

If other sensors are used, pay attention to the specification of the inputs and outputs (> 3.3.1)!

3.1.3 Necessary tools

For 19" installation of the RMS
(> 3.2):

- 3 mm screwdriver for slotted screws for fixing the cable
- 4 mounting screws suitable for the 19" rack with washers and nuts
- A screwdriver suitable for the mounting screws



3.2 19" installation

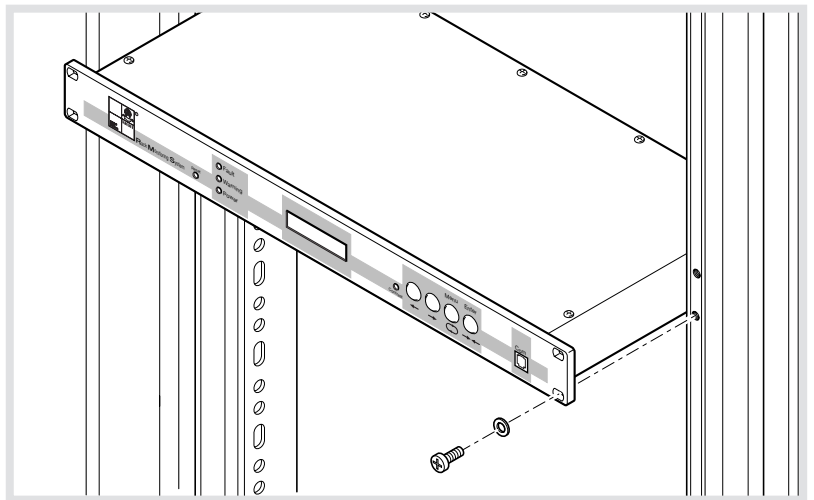
! Caution!

When installing the RMS in a rack, the additional requirements in accordance with IEC 950 must be observed and complied with!

- Determine the position in the 19" rack in which the RMS is to be installed. Observe the existing number of blanking plates for a uniform rack appearance.

Danger of overheating!

Allow sufficient space from built-in fans or air-conditioners to ensure an unimpeded flow of air in the rack.



X Note

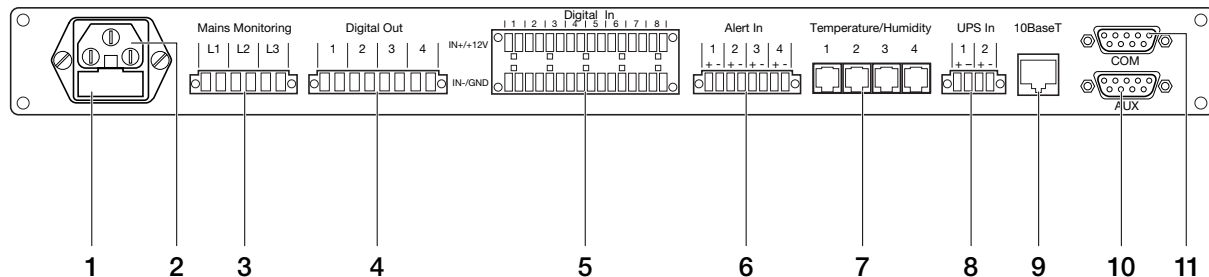
- Mount the RMS on sliding rails if possible. This makes handling the device easier and reduces wear on the rack.

If the RMS is mounted freely suspended, hold the device horizontal when tightening the screws and start with the two bottom screws.

- Mount the RMS in the desired position with 4 mounting screws, washers and nuts.

3.3 Electrical installation

3.3.1 Connections and cabling



- | | | | |
|------------------------|--|-----------|---|
| 1 Fuse plug | ➤ 3.3.3 | 8 UPS IN | UPS connections 1 - 2 |
| 2 Mains connection | ➤ 3.3.2 | 9 10BaseT | RJ45 Ethernet network connection |
| 3 MAINS MONITORING | Mains monitoring connections | 10 AUX | Serial interface for the control and monitoring of external devices |
| 4 DIGITAL OUT | Digital switching outputs 1 - 4 | 11 COM | Serial interface for terminal connection |
| 5 DIGITAL IN | Digital inputs 1 - 8 | | |
| 6 ALERT IN | Alarm inputs 1 - 4 | | |
| 7 TEMPERATURE/HUMIDITY | Temperature or humidity sensor connections 1 - 4 | | |

Connection

- Before connecting the RMS to the mains, properly connect all the components to the rear of the device. Observe VDE regulations!
- Only have mains voltages connected by authorised skilled persons.
- Use wire end ferrules when connecting litz cables!
- Observe the information on documentation (➤ A2)!

Cabling

- Avoid tensile loads, serious kinking and damage to the cables as a result of sharp edges or unsuitable tools (optional cable protection available).

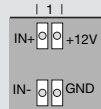
MAINS MONITORING

- 3 terminal pairs L1, L2 and L3 for the connection of 3 mains voltages
- Potential-free, no common earth reference
- U_{IN} 50 ... 255 V AC
- Only have mains voltages connected by authorised skilled persons. Observe VDE regulations!

DIGITAL OUT

- 4 terminal pairs for the connection of 4 consumers
- Potential-free relay switch contacts
- Relay 10^8 cycles purely mechanically, 10^5 cycles at maximum load switched
- Maximum load switched 1.5 A at 230 V AC, 2 A at 30 V DC

DIGITAL IN



06 12s Overload

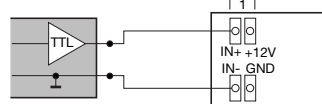
Enter



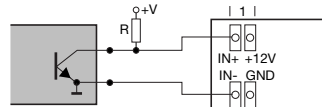
X Note

- 8 terminal groups (of 4 terminals) for the connection of devices of the type break contact/make contact or devices with switching output
- Potential-free, digital
- Left terminal pair “IN+” AND “IN-” digital input
- For the connection of a break contact/make contact, an auxiliary voltage of +12 V (top terminal) and an earth reference GND (bottom terminal) can be connected from the right terminal pair using the enclosed cable links (see connection examples below).
- U_{IN} +5 V...+25 V
- I_{IN} maximum 5 mA
- With auxiliary +12 V supply, maximum current draw of 200 mA
- Auxiliary voltage interruption in connection with overload or short circuit in the sensor cable:
“Fault” LED lights up.
Confirm the “overload” message in the LC display with the ENTER key and switch back on in the menu “Aux.Volt.” with the ENTER key (► 6).
In the event of interruption of auxiliary voltage, all auxiliary voltages (and thus all sensors) are switched off!

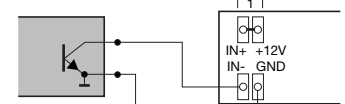
Device with TTL output



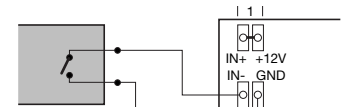
Device with open collector output and external 12 V auxiliary voltage



Device with open collector output but without external auxiliary voltage



Device with potential-free break contact/make contact (relay or optocoupler)



ALERT IN

- 4 terminal pairs for the connection of 4 differential signal lines or devices of the type break contact/make contact (only connect passive components)
- Maximum drawable alarm current approximately 20 mA
- For differential signal lines, ensure that the closed-circuit current of the entire signal line does not exceed a total of 900 μ A.

TEMPERATURE/HUMIDITY

- 4 RJ11 modular jacks for the connection only of the Knürr sensors available in the delivery programme (temperature sensor, humidity sensor or combined temperature/humidity sensor)
- Digital

UPS IN

- 2 terminal pairs for the connection of UPS switching outputs
- Potential-free, digital
- U_{IN} +5 V...+25 V
- I_{IN} maximum 5 mA

10BASET

- RJ45 modular jack for connection to a 10 Mbit Ethernet

COM



Note

AUX



- Serial interface – directly connected to the COM connection on the front of the device.

Never connect both COM interfaces at the same time!

Pin	Signal
1	–
2	RXD
3	TXD
4	–
5	GND

Pin	Signal
6	–
7	–
8	–
9	–

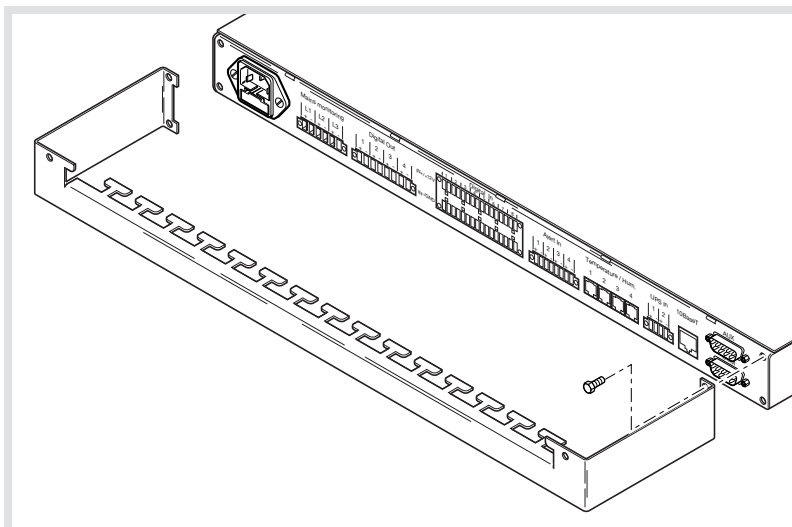
- Serial interface for the connection of external devices (for example, UPS, fans, air-conditioners, chipcard reader heating, ...)
- Specific protocols on request. Please contact your RMS dealer.

Pin	Signal
1	DCD
2	RXD
3	TXD
4	DTR
5	GND

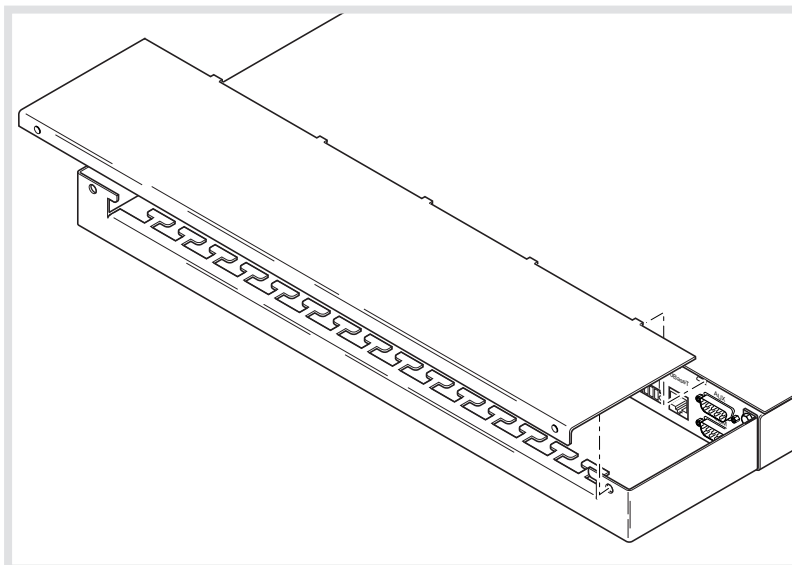
Pin	Signal
6	DSR
7	RTS
8	CTS
9	–

Cable protection (optional)

- Mount the cable clamp bracket with 4 screws.



- Fix the cables with suitable aids (cable binders, etc.) to the sheet metal lugs (serves as a cable grip).
- Insert the cover in the slots on the device, close the cover and snap it into the embossed areas.



3.3.2

Fuses

**Double-pole fuse /
fuse of the neutral wire**



Caution!



Danger!

Fuse for the auxiliary voltage
supply

3.4

Commissioning

Mains socket

RMS ready

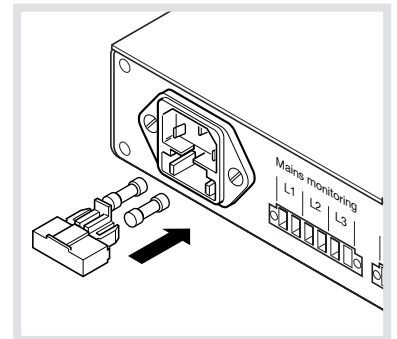


Note

Fire risk.

Only replace fuses with fuses
of the same type (250 V, 1 A,
slow-acting, high switching
capacity, 5 x 20 mm).

- Switch off the device and unplug the mains plug.
- Remove the fuse plug and replace the fuse.

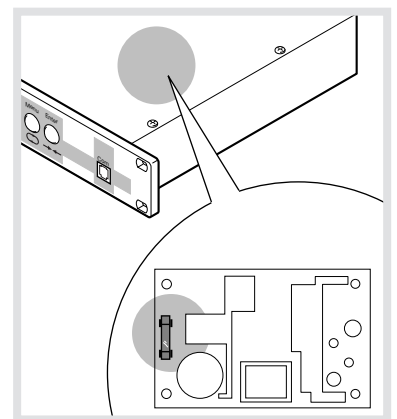


**The device is supplied from
several power sources.**

- The device may only be opened by trained personnel.

**To disconnect the device from
the voltage supply before
opening:**

- Disconnect the mains plug.
- Disconnect the MAINS MONITORING inputs.
- Open the cover of the device.
- Replace the fuse and close the device again.



Only replace fuse F1 on the +12 V auxiliary voltage supply (marked in the device) by a fuse of the same type (250 V, 400 mA, fast-acting, 5 x 20 mm, UL-listed).

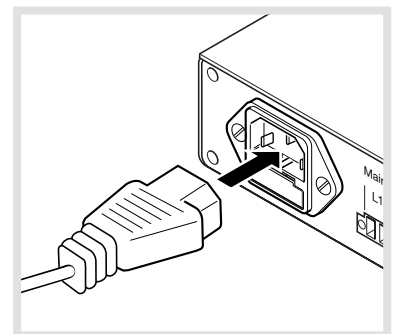
- Check that the RMS and the connected components are correctly cabled (► 3.3.1).

The mains socket is on the rear of the device.

- Use only the supplied power cable.

After connection, wait for the message in the LC display.

- Input the network parameters via Telnet, the COM interface (► 4.4) or by hand via the keys (► 4.3).

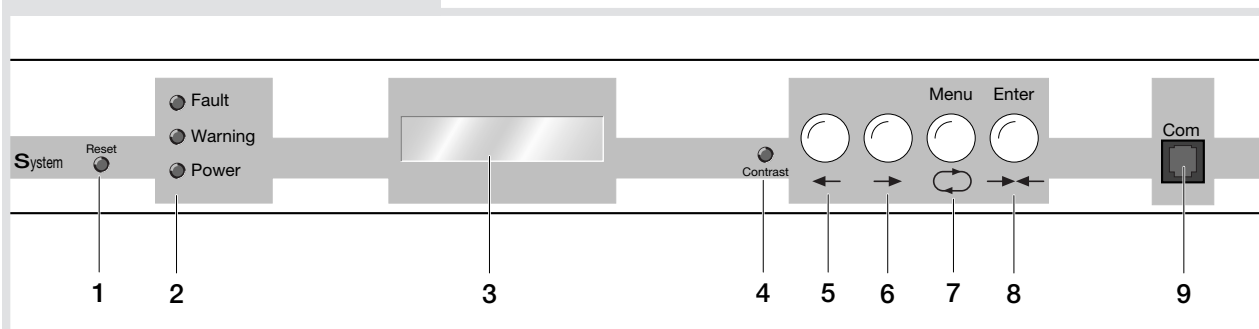


If function problems should arise: ► 5

All functions and displays indicated in the Manual depend on the version of the operating software. The latest version is available on the Internet (► 1.4).

4.1

Operator control elements



- | | |
|---|--|
| <p>1 Reset
Resets the RMS to a defined standard state (► 5).</p> <p>2 LEDs
“Fault” (red) lights up in connection with Reset, Overload or a serious system fault.
“Warning” (yellow) lights up if the conditions of an appropriately configured filter apply (► 4.9), when booting and in connection with Reset.
“Power” (green) lights up when the device is supplied with voltage.</p> <p>3 Illuminated LC display
Plain text display of inputs, messages and alarms.</p> | <p>4 Contrast controller for the LC display</p> <p>5 Left key
Page back in the menu, reduce values</p> <p>6 Right key
Page forward in the menu, increase values</p> <p>7 MENU key
Change to menu level</p> <p>8 ENTER key
Menu selection of confirm values</p> <p>9 “COM” communication socket for connection to a PC or terminal (serial communication cable enclosed).</p> |
|---|--|



Note

Never connect both COM interfaces at the same time!

4.2

Initial state

Knuerr RMS
N: RMS
L: Rechenzentrum
C: Fred Clever
I192.168.018.103
N255.255.255.000
B192.168.018.255
G192.168.018.200

Device name

SNMP information (► **4.5.1**)

- Name (N)
- Location (L)
- Contact (C)

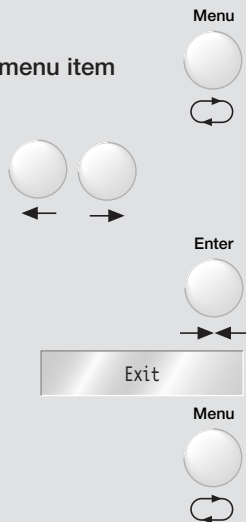
Network information (► **4.5**)

- IP-Adresse (I)
- Netmask (N)
- Broadcast address (B)
- Gateway address (G)

4.3

Operation via keys on the front of the device

Selecting a menu item

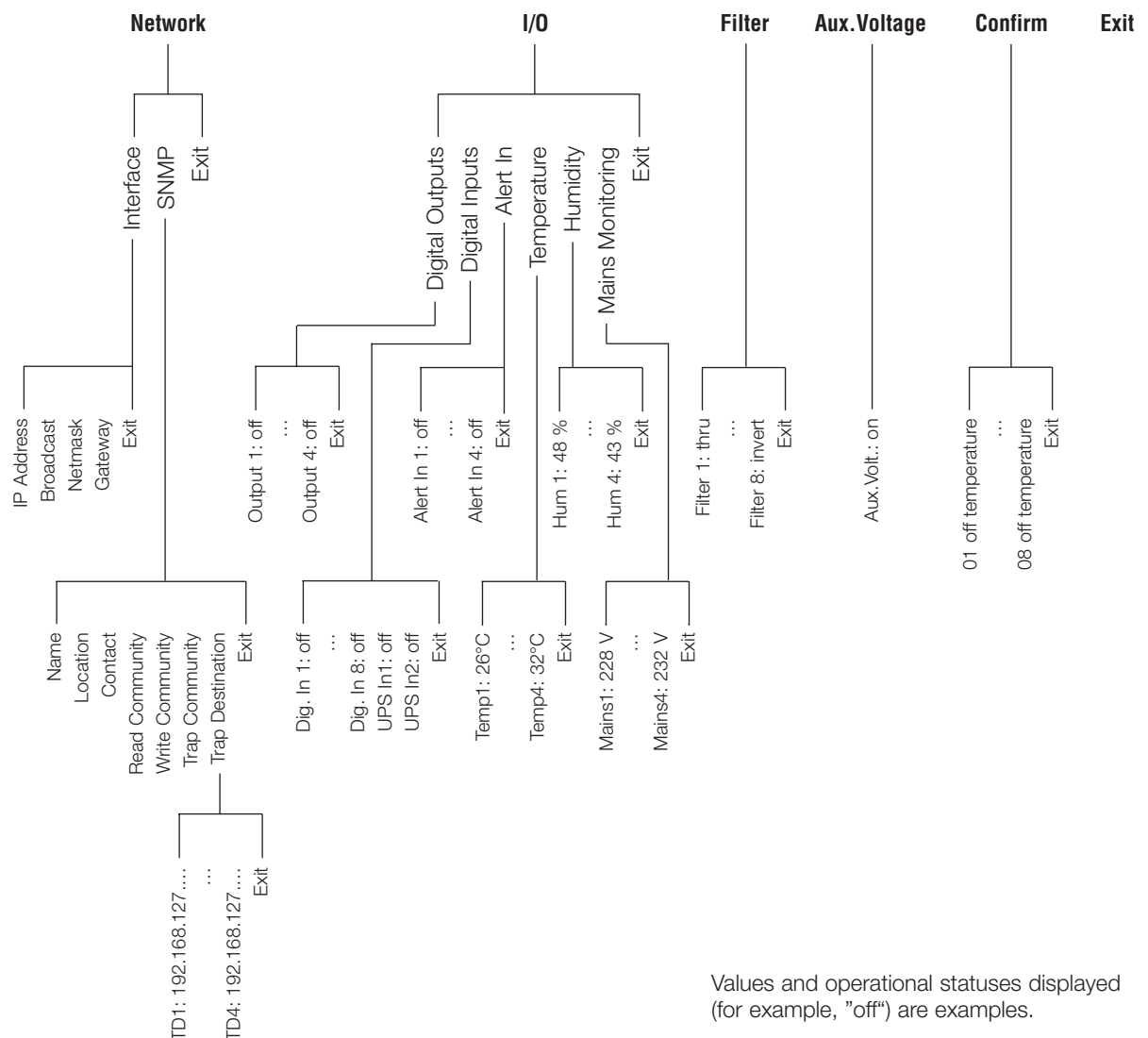


The functions accessible via the keys are mainly displays, i.e. current statuses are displayed without the possibility of entering data. Exception: menu items under "Network – Interface".

- Change from the initial state to the menu level using the MENU key.
- Change between the menu items using the arrow keys.
- Confirm the menu selection with the ENTER key.

Confirmation of the menu item Exit leads to the previous menu level.

Change to the initial state using the MENU key.



Filter messages

08 17s temperatu

Enter



Display in the "Confirm" menu

F03:*off humidit

F03: no confirm

Entering network parameters

I192.168.018.103

IP: 192.168.018.103 OK

Enter



Enter



Enter



Filter messages are displayed in the LC display as follows:

<Message number> (2-digit)

Blank

<Time> (2-digit)

<Unit of time> (s, m = min, h, d)

Blank

<Filter designation> (9-digit)

- Confirm filter messages with the ENTER key.
In the "Message Log" (► 4.10) the message is marked accordingly in the "Ack" column with an "x".

For the filter message to be displayed, it is necessary for the "Message Priority" other than "none" to be assigned in the "Filter Configuration" menu (► 4.9.2).

<Filter number> ("F"; 2-digit; ".")

* (only with confirmed filter)

<Current filter result> (3-digit: "off" or "on")

Blank

<Filter designation> (9-digit)

For the display, it is necessary for "Confirmation" "yes" to be assigned in the "Filter Configuration" menu (► 4.9.2).

Otherwise, the display "no confirm" appears.

If a connection via the COM interface is not possible, the following four network parameters must be entered via the keys before the device can be operated with Telnet:

- IP address
- Netmask
- Broadcast
- Gateway

If one of these menu items is selected in the LC display, the first position flashes after confirmation.

- Select the desired position with the arrow keys (the position selected flashes) and confirm with the ENTER key.
- Change the value of the position selected with the arrow keys and confirm with the ENTER key.

Leave the numerical input:

- Select the position "OK" with the arrow keys and confirm with the ENTER key.

4.4

Operation via Telnet or serial interface COM

X Note

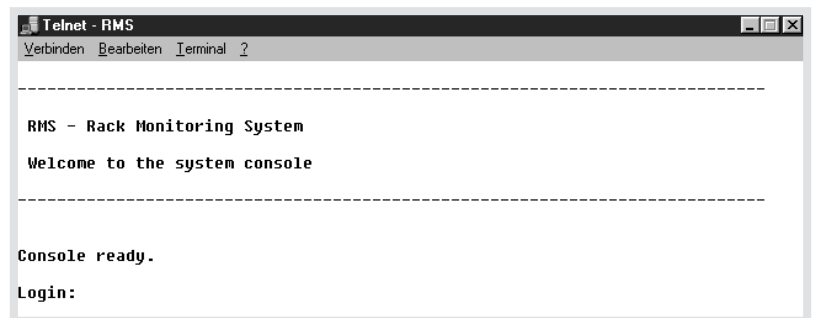
All the settings in the RMS can comfortably be made via Telnet or via the serial interface (COM).

COM parameters: 9600 baud, 8 data bits, no parity, 1 stop bit, software handshake.

Never connect both COM interfaces at the same time!

Create Telnet connection on the computer:

- Input:
Example: #telnet 192.168.18.103 <Return>
The Login screen appears.

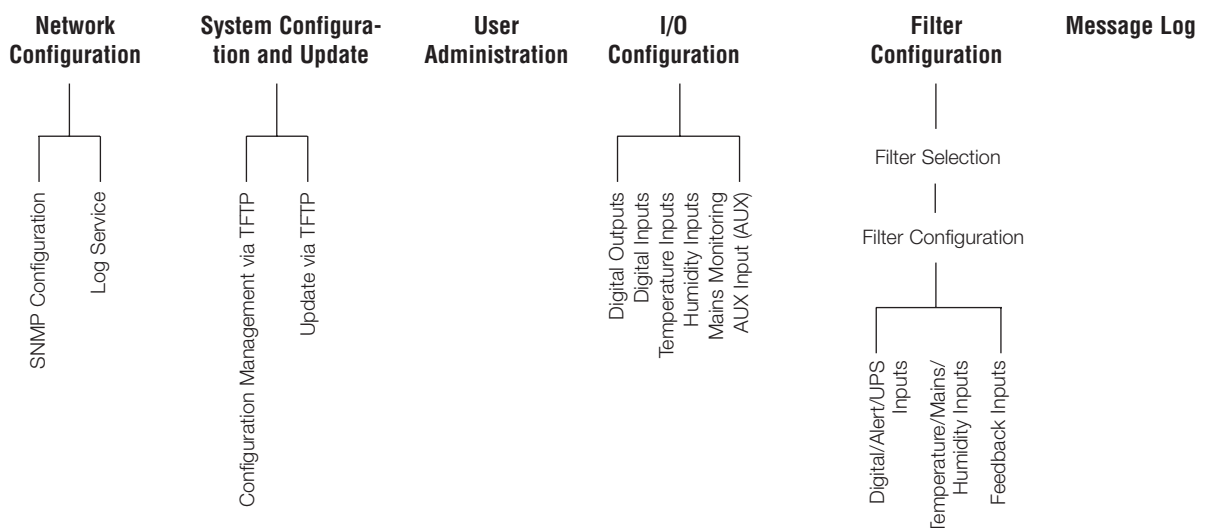


- Log in with an entered user name (➤ 4.7).
On first startup: rms <Return>
- Enter password.
On first startup: rms <Return>

After successfully logging in, the main menu appears (see over).

X Note

Letters in square brackets designate keys with which individual menu items can be selected.



Main menu

From the main menu it is possible to switch to the various sub-menus.

References to sub-menus are marked with ">"

```

Telnet - RMS
Verbinden Bearbeiten Terminal ?

RMS Version 1.4b3 H2-14 (1999/01/25-11:40)

Name: --RMS--
Serial: 00106c000715

[N] Network Configuration >
[S] System Configuration and Update >
[U] User Administration >
[I] I/O Configuration >
[F] Filter Configuration >
[M] Message Log >

[?] Help
[Q] Quit Session
  
```

[N] Network Configuration

Network and SNMP settings
(> 4.5).

[S] System Configuration and Update

Load and save system configuration and update operating software via TFTP (> 4.6).

[U] User Administration

User administration settings and their rights (> 4.7).

[I] I/O Configuration

Settings for parameterisation of inputs/outputs (> 4.8).

[F] Filter Configuration

Settings for parameterisation of filters (> 4.9).

[M] Message Log

Display and confirmation of system messages (> 4.10). Unlike the system log (> 4.5.2), only filter messages are logged here.

[?] Help

Explanation of the menu items.

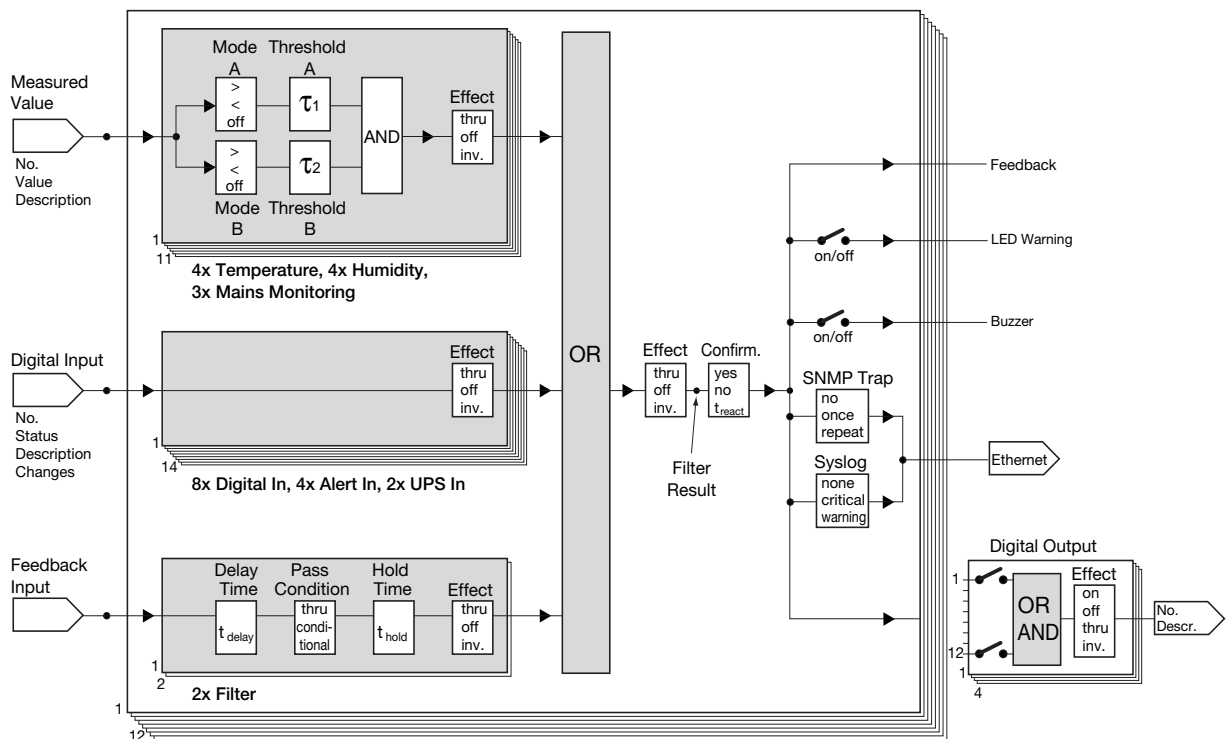
[Q] Quit Session

Quit session.

Block diagram

The signals applied at the physical input terminals (left) are combined in a complex filter structure (centre). The resulting filter result can then be supplied for switching and signalling purposes at physical output terminals (right) or be used to influence other filters (feedback).

Method of operation and configuration options of the filters (► 4.9).



4.5 Network Configuration

X Note

Central input mask for settings for the Ethernet interface.

References to sub-menus are marked with ">".

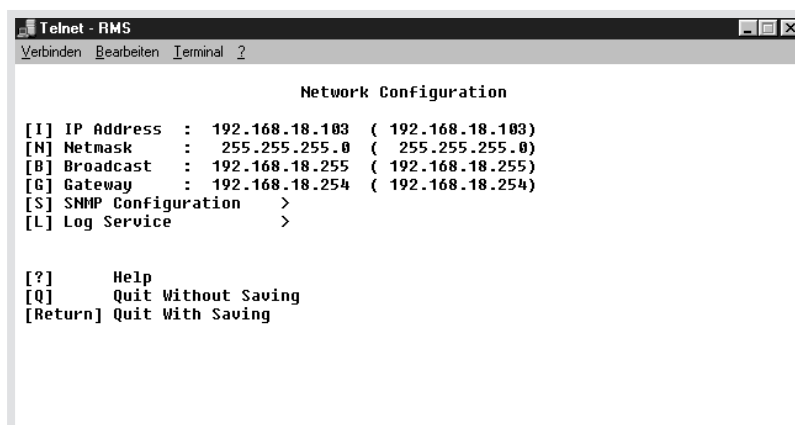
The Ethernet interface makes it possible to integrate the RMS into a local network (10 Mbit Ethernet), thus making the following functions available:

- SNMP support, thus integration into network management platforms
- Log book functional capabilities (syslog service)
- Loading and saving the system configuration (TFTP)
- Updating the system (TFTP)

- If the RMS is not operated in an Ethernet network, the settings described in this chapter can be ignored.

If you are unclear about the conditions of the local network, please ask the network administrator for assistance.

Incorrect settings can have the effect that the device is isolated from the network and/or is no longer capable of sending messages to the desired destination addresses (see also ► 4.5.1).



[I] IP Address

IP address of the Ethernet interface.

[N] Netmask

Netmask of the Ethernet interface.

[B] Broadcast

Broadcast address of the Ethernet interface.

[G] Gateway

Gateway to adjacent networks of the local network, which may be required.

[S] SNMP Configuration

All SNMP-specific settings of the device (► 4.5.1).

[L] Log Service

System log settings (► 4.5.2).

[?] Help

Explanation of the menu items.

[Q] Quit Without Saving

Jump back to the main menu without saving changes.

[Return] Quit With Saving

Jump back to the main menu and save changes.

4.5.1

SNMP Configuration

Complete control of the RMS via SNMP with alarm (trap function) and support of separate communities for read and write operations.

SNMP V1 in accordance with RFC 1213 is implemented. MIB-II including RMS private MIB is supported.

The complete MIB file of the RMS is on the CD-ROM supplied.

Explanation of the MIB variables

► A3.

Visualised integration in management platforms on request.

```

Telnet - RMS
Verbinden Bearbeiten Terminal ?

SNMP Configuration

[N] Name           : RMS
[L] Location       : Knuerr AG Muenchen, Schatzbogen 29, U12, Rack 4
[C] Contact        : Fred Clever, Phone: +49 (0)89 42004-0
[R] Read Community : public
[W] Write Community: private
[T] Trap Community : alarm
[S] Send Authtraps : yes
[M] SNMP Access    : yes

          - Trap Destinations -
          1) 192.168.18.15

[A] Add new trap destination
[D] Delete trap destination

[?] Help
[Q] Quit Without Saving
[Return] Quit With Saving
  
```

[N] Name

Administrative name of the device.
For example: "RMS"

[L] Location

Description of the location of the device.
For example: "Knürr AG München, Schatzbogen 29, U12, Rack 4"

[C] Contact

Name of the person responsible for this device and contact information.
For example: "Fred Clever, Tel. +49 (0) 89 42004-0"

[R] Read Community

Name of the community with the right to read SNMP variables.
For example: "public"

[W] Write Community

Name of the SNMP community with the right to write SNMP variables.
For example: "private"

[T] Trap Community

Name of the SNMP community with the right to receive traps from this device.
For example: "alarm"

[S] Send Authtraps

Send trap with unauthorised access with invalid or incorrect Community String (authority trap).

[M] SNMP Access

Enable or disable access via SNMP.

- Trap Destinations -

List of a maximum of 8 IP addresses to which SNMP traps are sent.

[A] Add New Trap Destination

Add an IP address to the list of trap receivers.

[D] Delete Trap Destination

Delete IP address from the list of trap receivers.

[?] Help

Explanation of the menu items.

[Q] Quit Without Saving

Jump back to the "Network Configuration" menu without saving changes.

[Return] Quit With Saving

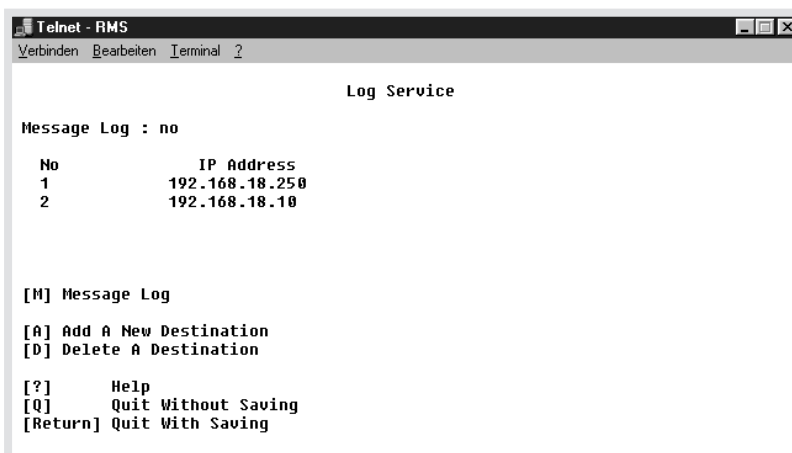
Jump back to the "Network Configuration" menu and save changes.

4.5.2 Log Service

Specify receivers of log messages in the network which support the standardised syslog service (UNIX-Server).

Two types of messages can be logged via the syslog service:

- Filter results similar to the displays under [M] Message Log in the main menu (➤ 4.10).
- Debug messages in the event of error analysis (please contact technical support).



[M] Message Log

Switch on/off display of filter messages.

[A] Add A New Destination

Add the IP address of a computer to receive log data.

[D] Delete A Destination

Delete a computer from the list.

[?] Help

Explanation of the menu items.

[Q] Quit Without Saving

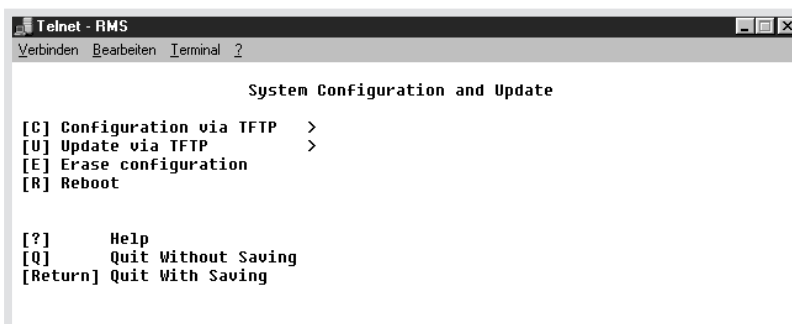
Jump back to the "Network Configuration" menu without saving changes.

[Return] Quit With Saving

Jump back to the "Network Configuration" menu and save changes.

4.6 System Configuration and Update

References to sub-menus are marked with ">".



[C] Configuration via TFTP

Save and load device configuration on other computers via TFTP (➤ 4.6.1)

[U] Update via TFTP

Update system software via TFTP (➤ 4.6.2).

[E] Erase Configuration

Reset all settings to the standard settings.

[R] Reboot

Warm restart of the device, session is interrupted.

[?] Help

Explanation of the menu items.

[Q] Quit Without Saving

Jump back to the main menu without saving changes.

[Return] Quit With Saving

Jump back to the main menu and save changes.

4.6.1

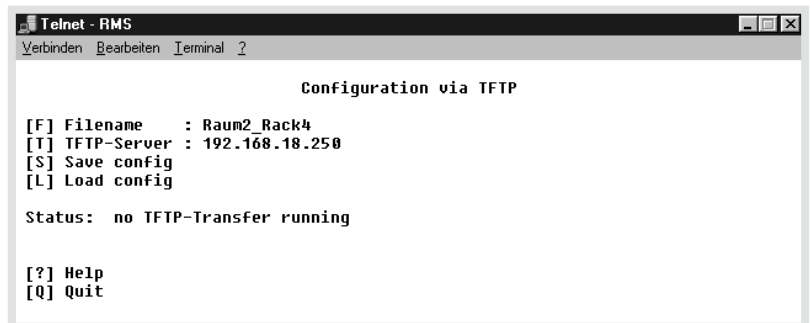
Configuration via TFTP

Tool for saving the system configuration in the network and thus capturing it in a central data backup.

The loading allows rapid startup without reparameterisation, for example after a system failure.

This requires that the TFTP service is running on the computer stated (TFTP server).

- Please contact your network administrator.

**[F] Filename**

Complete file name related to the exported TFTP directory.

[T] TFTP-Server

IP address of the TFTP server.

[S] Save Config

Save the system configuration.

The configuration can only be saved in an existing file!
This prevents overflow on the server hard disk as a result of the uncontrolled saving of configurations.

[L] Load Config

Load the system configuration.

Status:

Display of the current or last TFTP process.

[?] Help

Explanation of the menu items.

[Q] Quit

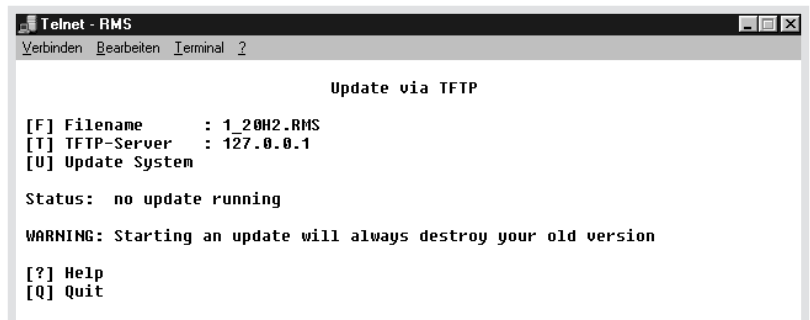
Jump back to the previous menu.

4.6.2

Update via TFTP

Tool for simple updating of the operating software via the network.

This requires that the TFTP service is running on the computer stated (TFTP server).

**[F] Filename**

File name of the operating software.

[T] TFTP-Server

IP address of the TFTP server.

[U] Update System

Update system software.

Status:

Display of the last or current TFTP update.

[?] Help

Explanation of the menu items.

[Q] Quit

Jump back to the previous menu.

4.7 User Administration

Input mask to set up users with access rights.

All users are displayed with their user name, password and rights.

All users are displayed with their user names, passwords and rights as well as their chipcard code, if applicable.

```

Telnet - RMS
Verbinden Bearbeiten Terminal ?

User Administration

-->
No Username      Password      Rights      Chipcard Key
1: rms          *****      write       5C0E6BE2
2: (undefined)  (undefined)  (undefined) (undefined)
3: (undefined)  (undefined)  (undefined) (undefined)
4: (undefined)  (undefined)  (undefined) (undefined)
5: (undefined)  (undefined)  (undefined) (undefined)
6: (undefined)  (undefined)  (undefined) (undefined)
7: (undefined)  (undefined)  (undefined) (undefined)
8: (undefined)  (undefined)  (undefined) (undefined)
9: (undefined)  (undefined)  (undefined) (undefined)
10: (undefined) (undefined)  (undefined) (undefined)
11: (undefined) (undefined)  (undefined) (undefined)
12: (undefined) (undefined)  (undefined) (undefined)

[A] Add User      [L] Learn Chipcard  [-] Previous User
[D] Delete User   [U] Unlearn Chipcard  [+] Next User

[?] Help
[Q] Quit Without Saving
[Return] Quit With Saving
  
```

[A] Add User

Add new user.

[D] Delete User

Delete selected user (-->).

[-] Previous User

Selection pointer to previous user.

[+] Next User

Selection pointer to next user.

[L] Learn Chipcard

Assign a chipcard to the selected user.

[U] Unlearn Chipcard

Withdraw the chipcard from the selected user.

[?] Help

Explanation of the menu items.

[Q] Quit Without Saving

Jump back to the main menu without saving changes.

[Return] Quit With Saving

Jump back to the main menu and save changes.

X Note

A maximum of 12 users can be created.

Reading or writing/reading rights can be assigned to each user.

Users with reading rights cannot save changes and do not have access to user administration.

The name and password are case-sensitive.

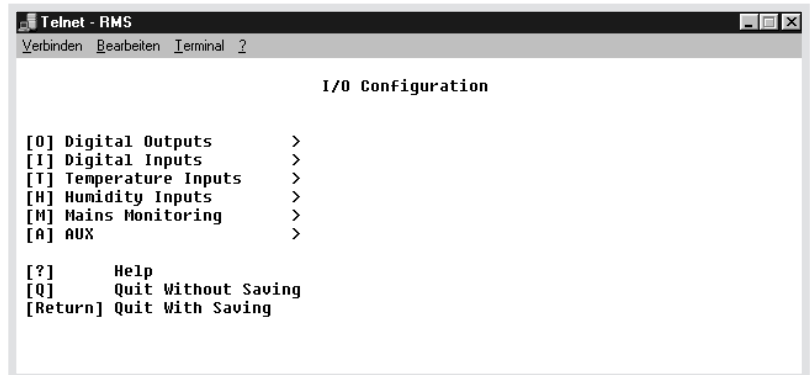
If the chipcard reader has been activated (► 4.8.7), the DIGITAL OUT 4 output is assigned exclusively to the door opener, in other words it is not possible to influence this output with the filters.

4.8

I/O Configuration

Input mask for the settings of the digital inputs and outputs.

References to sub-menus are marked with ">".

**[O] Digital Outputs**

Configure digital outputs.

[I] Digital Inputs

Configure digital inputs.

[T] Temperature Inputs

Configure temperature (sensor) inputs.

[H] Humidity Inputs

Configure humidity (sensor) inputs.

[M] Mains Monitoring

Configure mains monitoring input.

[A] AUX

Configure serial interface AUX.

[?] Help

Explanation of the menu items.

[Q] Quit Without Saving

Jump back to the main menu without saving changes.

[Return] Quit With Saving

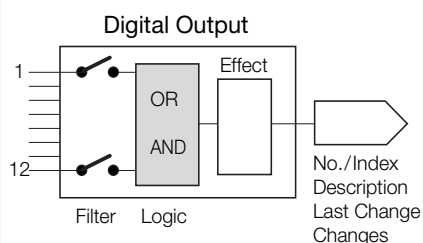
Jump back to the main menu and save changes.

4.8.1

Digital Outputs

Input mask for the settings of the DIGITAL OUT digital outputs.

Digital outputs are displayed with the number, description, combined filters, logic operation and effect.



For configuration with the chipcard reader only

If the chipcard reader has been activated (> 4.8.7), the DIGITAL OUT 4 output is assigned exclusively to the door opener, in other words it is not possible to influence this output with the filters.

Digital Outputs				
No	Description	Filter(s)	Logic	Effect
1	Fan Rack 2	1	or	thru
2	Fan Rack 5	2	or	thru
3	Alarm	1 2	and	thru
4	Light	3 5 7	or	invert

[D] Description	
[F] Filter	
[L] Logic	
[E] Effect	
[?] Help	
[Q] Quit	

[-] Previous Output
[+] Next Output

[D] Description

Description of the digital output.

thru switched through
invert switched through in inverted fashion

[F] Filter

Specify the filter(s) (> 4.9) which act(s) on a digital output.

[-] Previous Output

Selection pointer to previous output.

[L] Logic

Specify the logic operation with which the filters are combined.

[+] Next Output

Selection pointer to next output.

[E] Effect

State how the logic result acts on the digital output.

[?] Help

Explanation of the menu items.

on permanently switched on (independent of settings in Filter and Logic)
off switched off (independent of settings in Filter and Logic)

[Q] Quit

Jump back to the previous menu.

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Digital Outputs

Filter(s)
123456789012
No Description Logic Effect State
1 Digital Output 1 *none* and off open
2 Digital Output 2 *none* and off open
3 Digital Output 3 *none* and off open
--> 4 door opener (chipcard reader) *none* and off open

NOTICE: Digital Out 4 is currently under control of the chipcard
reader and can't be assigned to any filter(s).

[D] Description
[F] Filter
[L] Logic [-] Previous Output
[E] Effect [+] Next Output

[?] Help
[Q] Quit
```

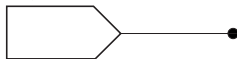
The menu points [D], [F], [L] and [E] are disabled for DIGITAL OUT 4 whilst the current status of the output is displayed in the column headed "State".

4.8.2

Digital Inputs

Displays for the DIGITAL IN, ALERT IN and UPS IN digital inputs with the number, description, status (on/off), number of status changes and time of the last change.

Digital Input



No./Index
Description
State
Last Change
Changes
(Reset)

Digital Inputs				
No	Description	Status	Changes	Last Change
--> D 1	infrared	off	0	0 days 01:35:43
D 2	door	off	0	0 days 01:35:43
D 3		off	0	0 days 01:35:43
D 4		off	0	0 days 01:35:43
D 5		off	0	0 days 01:35:43
D 6		off	0	0 days 01:35:43
D 7		off	0	0 days 01:35:43
D 8		off	0	0 days 01:35:43
A 1	smoke	off	0	0 days 01:35:43
A 2	vibration	off	0	0 days 01:35:43
A 3		off	0	0 days 01:35:43
A 4		off	0	0 days 01:35:43
U 1	ups 1	off	0	0 days 01:35:43
U 2	ups 2	off	0	0 days 01:35:43

[D] Description	[-] Previous Input
[R] Reset Alert In	[+] Next Input
[?] Help	
[Q] Quit	

[D] Description

Description of the digital input.

[R] Reset Alert In

Reset the sensors connected to the ALERT IN inputs (deletes the alarm status in the sensor).

[-] Previous Input

Selection pointer to the previous input.

[+] Next Input

Selection pointer to the next input.

[?] Help

Explanation of the menu items.

[Q] Quit

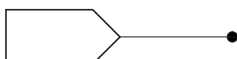
Jump back to the previous menu.

4.8.3

Temperature Inputs

Displays for the TEMPERATURE/HUMIDITY digital temperature inputs with the number, description and current value.

Measured Value



No./Index
Description
Value

Temperature Inputs		
No	Description	Temperature
--> 1	temp rack 3	23 deg. C
2	temp rack 4	27 deg. C
3	temp rack 6	32 deg. C
4	temp floor	21 deg. C

[D] Description	
[-] Previous Temperature	
[+] Next Temperature	
[?] Help	
[Q] Quit	

[D] Description

Description of the temperature input.

[-] Previous Temperature

Selection pointer to the previous input.

[+] Next Temperature

Selection pointer to the next input.

[?] Help

Explanation of the menu items.

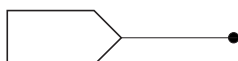
[Q] Quit

Jump back to the previous menu.

4.8.4 Humidity Inputs

Displays for the TEMPERATURE/HUMIDITY digital humidity inputs with the description and current value.

Measured
Value



No./Index
Description
Value

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Humidity Inputs

No      Description      rel. humidity
--> 1    room 3           *no sensor*
2    room 3           32 %
3    room 3           *no sensor*
4    room 4           42 %

[D] Description
[-] Previous Humidity
[+] Next Humidity

[?] Help
[Q] Quit
```

[D] Description

Description of the humidity sensor.

[-] Previous Humidity

Selection pointer to the previous input.

[+] Next Humidity

Selection pointer to the next input.

[?] Help

Explanation of the menu items.

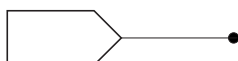
[Q] Quit

Jump back to the previous menu.

4.8.5 Mains Monitoring

Displays for the MAINS MONITORING digital inputs with the number, description and current value.

Measured
Value



No./Index
Description
Value

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Mains Monitoring

No      Description      Voltage
--> 1    Phase 1          229 V
2    Phase 2          230 V
3    Phase 3          238 V

[D] Description
[-] Previous Mains
[+] Next Mains

[?] Help
[Q] Quit
```

[D] Description

Description of the mains.

[+] Next Mains

Selection pointer to the next mains.

[-] Previous Mains

Selection pointer to the previous mains.

[?] Help

Explanation of the menu items.

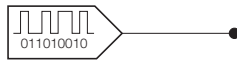
[Q] Quit

Jump back to the previous menu.

4.8.6

Connect external devices via serial interface (AUX)

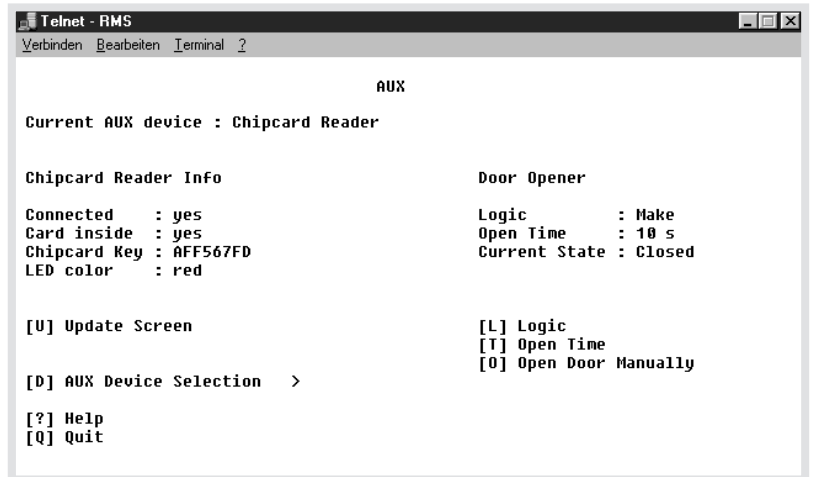
AUX



Description
Value(s)

Devices with a serial interface (for example chipcard reader, UPS, etc.) can be connected to the AUX port on the rear of the RMS.

Software version 1.4 can support a chipcard reader to implement an access control system.

**[U] Update Screen**

Update the screen.

[D] AUX Device Selection

Select a different device.

[L] Logic

Set the logic for the door opener contact.

make The contact is made if successful (default status open)

break The contact is broken if successful (default status closed)

[T] Open Time

Set the open time.

[O] Open Door Manually

Open the door.

[?] Help

Explanation of the menu points.

[Q] Quit

Return to the previous menu.

4.8.7

AUX Device Selection

```

Telnet - RMS
Verbinden Bearbeiten Terminal ?

AUX Device Selection

Supported Devices

<No device>
--> Chipcard Reader

WARNING: If selecting Chipcard Reader as AUX device
        Digital Out 4 will be reserved for door opener !!!

[-] Previous Device
[+] Next Device

[?] Help
[Q] Quit Without Saving
[Return] Quit With Saving

```

[-] Previous Device

Set the selection pointer to the previous device.

[+] Next Device

Set the selection pointer to the next device.

[?] Help

Explanation of the menu points.

[Q] Quit

Return to the previous menu.

[Return] Quit With Saving

Save the changes and return to the previous menu.



Note

These settings affect the display and function in the menus "User Configuration" (> 4.7), "Digital Outputs" (> 4.8.1) and "AUX Configuration" (> 4.8.6).

4.9

Filters

Mode of operation

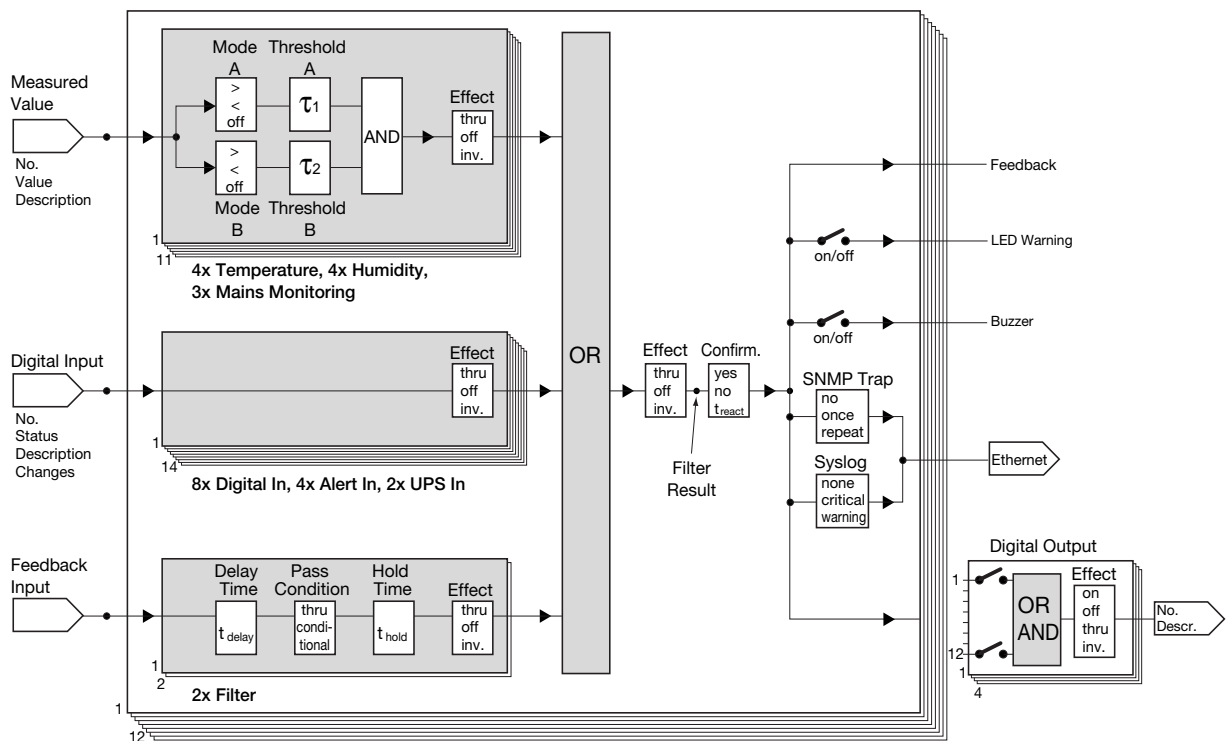
The filters are the central elements of the RMS. They make it possible logically to combine the results recorded at the inputs and to supply the result to the digital outputs or to generate various signals.

It is possible to configure a total of 12 filters with an identical structure. In this case, all inputs are available to each filter.

Depending on the type of input signal (measured value, status, filter feedback), in principle there are three different function blocks for processing the results.

The results of all the function blocks are combined via a common, logical OR element to form the filter result.

This filter result can then, depending on requirements, be used to generate alarm messages (SNMP Trap, LED Warning, Buzzer), to control digital outputs or for feedback to other filters.



Filter Selection

All filters are displayed with the number, description, status, result, reactivation time and confirmation status.

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Filter Selection

No  Description      State  Result  ReactTime  Confirmed  Disabled
--> 1  temperature      off   off     0 s
    2  humidity        off   off     0 s
    3  mains            off   off     0 s
    4  smoke/vibration  act   off     0 s
    5  ups              act   off     0 s
    6  infrared        act   off     0 s
    7  door            act   off     0 s
    8  door left open  act   off     0 s
    9  unused          off   off     0 s
   10 maximum alarm duration act   off     0 s
   11 upper threshold off   off     0 s
   12 lower threshold off   off     0 s

[D] Disable          [-] Previous Filter
[C] Confirm Filter   [+] Next Filter
[F] Filter Configuration >
[?] Help
```

[D] Disable

Deactivate the selected filter without changing the filter settings.

[C] Confirm Filter

Confirm selected filter. The confirmation deactivates the filter for the duration of the reactivation time (> 4.9.2).

[-] Previous Filter

Selection pointer to the previous filter.

[+] Next Filter

Selection pointer to the next filter.

[F] Filter Configuration

Configure selected filter.

[?] Help

Explanation of the menu items.

[Q] Quit Without Saving

Jump back to the main menu without saving changes.

Filter Configuration

References to sub-menus are marked with ">".

A "*" before the ">" indicates that at least one of the inputs is applied to this filter.

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Filter Configuration
Filter 1

[D] Description      : intruder alert
[E] Effect           : thru
[S] SNMP Trap        : repeat      [P] Message Priority : critical
[L] LED Warning      : yes         [C] Confirmation    : no
[B] Buzzer Warning   : no          [R] Reactivation Time : 0 s

[I] Digital/Alert/UPS Inputs (*) >
[T] Temperature Inputs >
[H] Humidity Inputs  >
[M] Mains Inputs      >
[F] Feedback Inputs   >

[?] Help
[Q] Quit Without Saving
[Return] Quit With Saving
```

[D] Description

Description of the filter.

[E] Effect

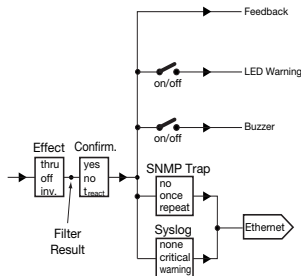
Effect of the filter result after the OR element.

thru switched through
off switched off
invert switched through in inverted fashion

[S] SNMP Trap

In connection with an event, send traps to all entered trap receivers (> 4.5.1).

no No trap
once Trap if the filter event occurs
repeat Repeated traps (every 60 seconds) until the filter event occurs

**[L] LED Warning**

Im Ereignisfall die LED "Warning" einschalten.

[B] Buzzer Warning

In connection with an event, switch on the buzzer.

[M] Message Priority

Characterises the priority of the filter event.

none no entry in the message log

critical
warning

[C] Confirmation

Enable or disable confirmation of a filter result.

[R] Reactivation Time

Specify the time after which a confirmed filter is reactivated.

[I] Digital/Alert/UPS Inputs

Configure general digital inputs.

[T] Temperature Inputs

Configure temperature inputs.

[H] Humidity Inputs

Configure humidity inputs.

[M] Mains Inputs

Configure mains monitoring inputs.

[F] Feedback Inputs

Configure feedback inputs.

[?] Help

Explanation of the menu items.

[Q] Quit Without Saving

Jump back to the previous menu without saving changes.

[Return] Quit With Saving

Jump back to the previous menu and save changes.

4.9.3

Digital/Alert/UPS Inputs

The inputs are displayed with the type, number, description and effect.



Telnet - RMS			
Verbinden Bearbeiten Terminal 2			
Digital/Alert/UPS Inputs			
Filter 1			
	No	Description	Effect
-->	Digital In 1	smoke detector	invert
	Digital In 2	cover rack 3	off
	Digital In 3	door room 3	off
	Digital In 4		off
	Digital In 5		off
	Digital In 6		off
	Digital In 7		off
	Digital In 8		off
	Alert In 1	smoke detector	off
	Alert In 2		off
	Alert In 3		off
	Alert In 4		off
	UPS In 1	UPS rack 4	off
	UPS In 2		off
[-] Previous Digital/Alert/UPS Input			[E] Effect
[+] Next Digital/Alert/UPS Input			
[?] Help			
[Q] Quit			

[-] Previous Digital/Alert/UPS Input

Selection pointer to the previous input.

[+] Next Digital/Alert/UPS Input

Selection pointer to the next input.

[E] Effect

Effect of the input signal on the OR element.

thru switched through
off switched off
invert switched through in inverted fashion

[?] Help

Explanation of the menu items.

[Q] Quit

Jump back to the previous menu.

Temperature/Mains/Humidity Inputs

The filter inputs for measured values are displayed with the threshold, mode and effect.

They have a flexible structure for the creation of larger/smaller comparisons or window comparisons.

Thus the following filter conditions can easily be realised:

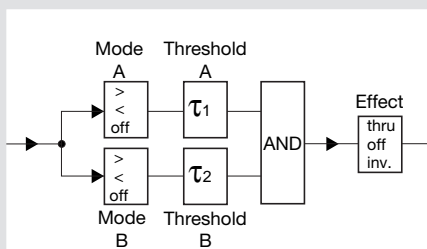
- 1) Simple larger/smaller comparison (switch if the input variable is smaller/larger than the threshold).

Example 1 – Switch if temperature 1 > 35 °C: mode A ">"; threshold A 35; mode B "off"; threshold B any value; effect "thru".

- 2) "Window comparison" (switch if the input variable is inside/outside a defined range)

Example 2 – Switch if voltage 1 is between 210 V and 240 V: Mode A ">"; threshold A 210; Mode B "<"; threshold B 240; effect "thru"

Example 3 – Switch if humidity 1 is less than 30 % or greater than 80 %: Mode A ">"; threshold A 30; Mode B "<"; threshold B 80; effect "invert"



```

Telnet - RMS
Verbinden Bearbeiten Terminal ?

Temperature Inputs
Filter 4

--> No Mode-A Thres-A Mode-B Thres-B Effect
    1 > 35 off 40 thru
    2 off 40 off 40 off
    3 off 40 off 40 off
    4 off 40 off 40 off

Description of No 1 : temp rack 3

[A] Mode-A [B] Mode-B [E] Effect
[1] Thres-A [2] Thres-B

[-] Previous Temperature Input
[+] Next Temperature Input

[?] Help
[Q] Quit
  
```

```

Telnet - RMS
Verbinden Bearbeiten Terminal ?

Mains Inputs
Filter 2

--> No Mode-A Thres-A Mode-B Thres-B Effect
    1 > 210 U < 240 U thru
    2 off 150 U off 150 U off
    3 off 150 U off 150 U off

Description of No 1 : mains 1

[A] Mode-A [B] Mode-B [E] Effect
[1] Thres-A [2] Thres-B

[-] Previous Mains Input
[+] Next Mains Input

[?] Help
[Q] Quit
  
```

```

Telnet - RMS
Verbinden Bearbeiten Terminal ?

Humidity Inputs
Filter 2

--> No Mode-A Thres-A Mode-B Thres-B Effect
    1 > 30 % < 80 % invert
    2 off 40 % off 40 % off
    3 off 40 % off 40 % off
    4 off 40 % off 40 % off

Description of No 1 : humidity 1

[A] Mode-A [B] Mode-B [E] Effect
[1] Thres-A [2] Thres-B

[-] Previous Humidity Input
[+] Next Humidity Input

[?] Help
[Q] Quit
  
```

[A] Mode-A [B] Mode-B

Set comparison module.

[1] Thres-A [2] Thres-B

Set threshold.

[E] Effect

State how the input acts on the OR element.

thru switched through

off switched off

invert switched through in

inverted fashion

[-] Previous Input

Selection pointer to previous input.

[+] Next Input

Selection pointer to next input.

[?] Help

Explanation of the menu items.

[Q] Quit

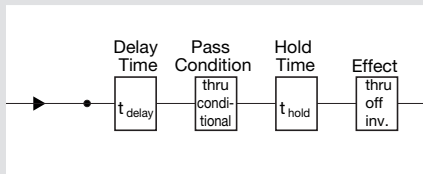
Jump back to the previous menu.

4.9.5

Feedback Inputs

To realise complex filter conditions, each filter has two feedback inputs where filter events can be further processed.

The special feature here is the possibility of delay (delay time), conditional evaluation (pass condition) and hold time.

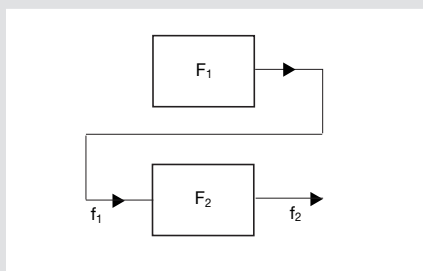


F_1 : Filter 1

F_2 : Feedback input of filter 2.

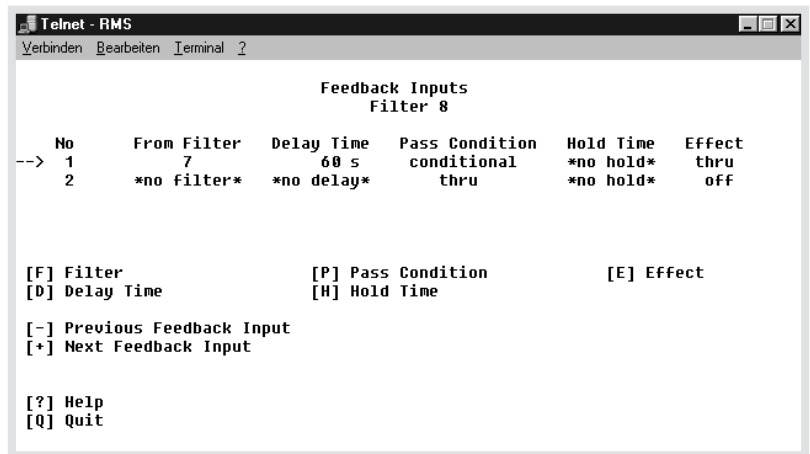
f_1 : F_1 output event, input event of F_2

f_2 : Output of the feedback input of F_2



With a pass condition = thru, the effective hold time of f_2 can be extended by any time by subsequent events of f_1 (retriggering).

f_2 in this case is not released until t_{hold} after the last falling edge of f_1 .



[-] Previous Feedback Input

Selection pointer to previous input.

[+] Next Feedback Input

Selection pointer to next input.

[F] Filter

Origin of the feedback.

[D] Delay Time

Set the delay time after the operation of the input event f_1 in s.

[H] Hold Time

Set the hold time of f_2 after the release of f_1 in s.

[P] Pass Condition

Set the pass mode.

thru pass
conditional pass if input condition is still met

[E] Effect

State how the input acts on the OR element.

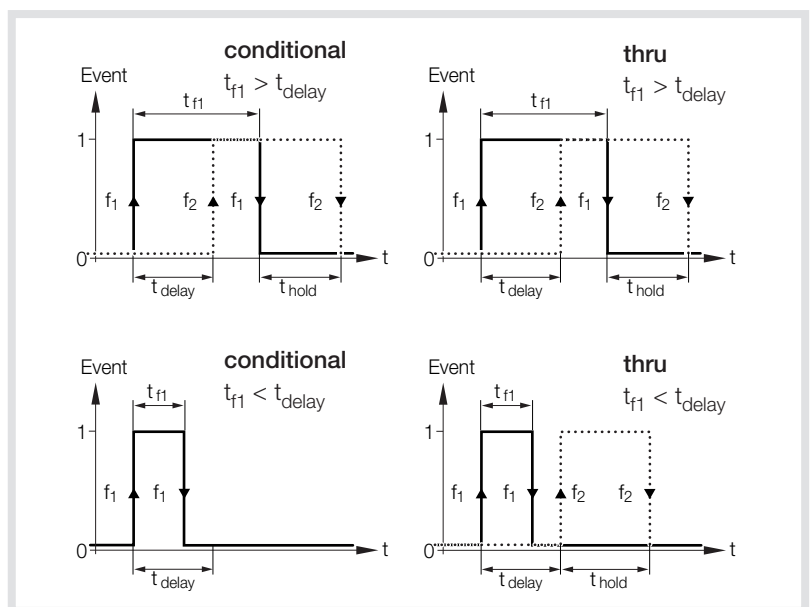
thru switched through
off switched off
invert switched through in inverted fashion

[?] Help

Explanation of the menu items.

[Q] Quit

Jump back to the previous menu.



4.10 Message Log

The messages are displayed with the number, priority, acknowledgment, spent time and filter description.

A maximum of the 15 last messages can be displayed.

No	Priority	Ack	Filter	Time	Message
-> 1	warning	x	06	0d 02:06:34	infrared

[A] Acknowledge	[-] Previous Message
[?] Help	[+] Next Message
[Q] Quit	

[A] Acknowledge

Select message acknowledged (mark with x).

[-] Previous Message

Selection pointer to previous message.

[+] Next Message

Selection pointer to next message.

[?] Help

Explanation of the menu items.

[Q] Quit

Jump back to the previous menu.

Preconfigured filters with an example of terminal assignment.

- Connect sensors to the suggested terminals.

Example of filter configuration using filter 1 (temperature).

- Activate the filter by setting the respective effect to "thru" or "invert" (preset: "off").
- Make individual settings (effect, warnings, ...) for each filter required.

See also ► 4.9.2.

Examples of filter settings

TEMPERATURE/HUMIDITY input 1 with simple comparison:

Alarm if temperature > 35 °C.

TEMPERATURE/HUMIDITY input 2 with window comparison:

Alarm if temperature < 5 °C or > 45 °C.

See also ► 4.9.4.

When the RMS is delivered, the most common applications (described in part in the following) have been preconfigured so that commissioning involves setting fewer parameters.

Telnet - RMS

Verbinden Bearbeiten Terminal ?

Filter Selection

No	Description	State	Result	ReactTime	Confirmed	Disabled
--> 1	temperature	act	on	0 s		
2	humidity	off	off	0 s		
3	mains	off	off	0 s		
4	smoke/vibration	off	off	0 s		
5	ups	act	off	0 s		
6	infrared	act	off	0 s		
7	door	act	off	0 s		
8	door left open	act	off	0 s		
9	unused	off	off	0 s		

Telnet - RMS

Verbinden Bearbeiten Terminal ?

Filter Configuration
Filter 1

[D] Description	: temperature		
[E] Effect	: thru		
[S] SNMP Trap	: repeat	[P] Message Priority	: none
[L] LED Warning	: yes	[C] Confirmation	: no
[B] Buzzer Warning	: no	[R] Reactivation Time	: 0 s
[I] Digital/Alert/UPS Inputs	>		
[T] Temperature Inputs	(*) >		
[H] Humidity Inputs	>		
[M] Mains Inputs	>		
[F] Feedback Inputs	>		

Telnet - RMS

Verbinden Bearbeiten Terminal ?

Temperature Inputs
Filter 1

No	Mode-A	Thres-A	Mode-B	Thres-B	Effect
--> 1	>	35	off	40	thru
2	>	5	<	45	invert
3	off	40	off	40	off
4	off	40	off	40	off

Description of No 1 : temperature 1

[A] Mode-A		[B] Mode-B		[E] Effect
[1] Thres-A		[2] Thres-B		

TEMPERATURE/HUMIDITY input 3 with window comparison:
Alarm if humidity < 35 % or > 60 % relative humidity.

See also ► 4.9.4.

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Humidity Inputs
Filter 2

No Mode-A Thres-A Mode-B Thres-B Effect
1 off 40 % off 40 % off
2 off 40 % off 40 % off
--> 3 > 35 % < 60 % invert
4 off 40 % off 40 % off

Description of No 3 : Humidity 3

[A] Mode-A [B] Mode-B [E] Effect
[1] Thres-A [2] Thres-B
[-] Previous Humidity Input
[+] Next Humidity Input
```

MAINS inputs 1 to 3 with window comparison:
Alarm if U < 200 V or U > 245 V.

See also ► 4.9.4.

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Mains Inputs
Filter 3

No Mode-A Thres-A Mode-B Thres-B Effect
--> 1 > 200 V < 245 V invert
2 > 200 V < 245 V invert
3 > 200 V < 245 V invert

Description of No 1 : mains 1

[A] Mode-A [B] Mode-B [E] Effect
[1] Thres-A [2] Thres-B
[-] Previous Mains Input
[+] Next Mains Input
```

ALERT IN inputs 1 and 2:
Alarm if smoke detector or vibration sensor operate.

See also ► 4.9.3.

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Digital/Alert/UPS Inputs
Filter 4

No Description Effect
Digital In 1 infrared off
Digital In 2 door off
Digital In 3 off
Digital In 4 off
Digital In 5 off
Digital In 6 off
Digital In 7 off
Digital In 8 off
--> Alert In 1 smoke thru
Alert In 2 vibration thru
Alert In 3 off
Alert In 4 off
UPS In 1 ups 1 off
UPS In 2 ups 2 off
```

UPS In inputs 1 and 2:
Alarm if UPS 1 or 2 reports power failure.

See also ► 4.9.3.

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Digital/Alert/UPS Inputs
Filter 5

No Description Effect
Digital In 1 infrared off
Digital In 2 door off
Digital In 3 off
Digital In 4 off
Digital In 5 off
Digital In 6 off
Digital In 7 off
Digital In 8 off
Alert In 1 smoke off
Alert In 2 vibration off
Alert In 3 off
Alert In 4 off
--> UPS In 1 ups 1 thru
UPS In 2 ups 2 thru
```

DIGITAL IN input 1:
Alarm if passive infrared sensor
operates.

See also ► 4.9.3.

DIGITAL IN input 2:
Alarm if door is open for longer
than 60 s.

In the Filter Configuration menu, set
effect to "thru" for filter 7.

In the Feedback Input menu, set
effect to "thru" for filter 8.

See also ► 4.9.5.

Telnet - RMS			
Verbinden Bearbeiten Terminal 2			
Digital/Alert/UPS Inputs			
Filter 6			
No	Description		Effect
-->Digital In 1	infrared		invert
Digital In 2	door		off
Digital In 3			off
Digital In 4			off
Digital In 5			off
Digital In 6			off
Digital In 7			off
Digital In 8			off
Alert In 1	smoke		off
Alert In 2	vibration		off
Alert In 3			off
Alert In 4			off
UPS In 1	ups 1		off
UPS In 2	ups 2		off

Telnet - RMS			
Verbinden Bearbeiten Terminal 2			
Digital/Alert/UPS Inputs			
Filter 7			
No	Description		Effect
Digital In 1	infrared		off
-->Digital In 2	door		invert
Digital In 3			off
Digital In 4			off
Digital In 5			off
Digital In 6			off
Digital In 7			off
Digital In 8			off
Alert In 1	smoke		off
Alert In 2	vibration		off
Alert In 3			off
Alert In 4			off
UPS In 1	ups 1		off
UPS In 2	ups 2		off

```
Telnet - RMS
```

Verbinden Bearbeiten Terminal ?

Feedback Inputs

Filter 8

No	From Filter	Delay Time	Pass Condition	Hold Time	Effect
--> 1	7	60 s	conditional	*no hold*	thru
2	*no filter*	*no delay*	thru	*no hold*	off

[F] Filter

[D] Delay Time

[P] Pass Condition

[H] Hold Time

[E] Effect

[-] Previous Feedback Input

[+] Next Feedback Input

Limited alarm duration for filter 4:
Internal buzzer active for 5 seconds
if filter 4 (smoke and shock sensor)
is active

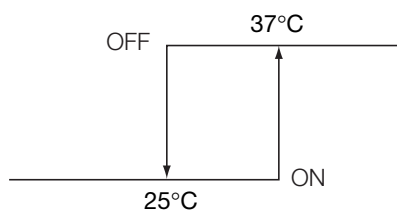
Set input for filter 10 Effect to "thru"
in the Feedback menu.

Specimen output configuration

Additional fan on DIGITAL OUT 1:
activated if filter 1 trips
(temperature).

Signal horn on DIGITAL OUT 2:
activated if filter 4 (smoke or shock)
or filter 6 (passive infra red) trip.

Second fan on DIGITAL OUT 3 with
hysteresis for temperature 1: switch
on fan if temperature 1 > 37 °C and
do not switch off until temperature
1 < 25 °C.



```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Filter Configuration
Filter 10

[D] Description      : limited alarm duration
[E] Effect           : invert
[S] SNMP Trap       : no
[L] LED Warning      : no
[B] Buzzer Warning   : yes
[P] Message Priority : none
[C] Confirmation     : disabled
[R] Reactivation Time : 0 s

[I] Digital/Alert/UPS Inputs >
[T] Temperature Inputs >
[H] Humidity Inputs >
[M] Mains Inputs >
[F] Feedback Inputs (*) >
```

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Feedback Inputs
Filter 10

--> No      From Filter  Delay Time  Pass Condition  Hold Time  Effect
      1         4         *no delay* conditional    *no hold* invert
      2         4         5 s        conditional    *no hold* thru

[F] Filter           [P] Pass Condition      [E] Effect
[D] Delay Time       [H] Hold Time

[-] Previous Feedback Input
[+] Next Feedback Input
```

```
Telnet - RMS
Verbinden Bearbeiten Terminal ?

Feedback Inputs
Filter 12

--> No      From Filter  Delay Time  Pass Condition  Hold Time  Effect
      1         11        *no delay* thru        *no hold* thru
      2        *no filter* *no delay* thru        *no hold* off
```

```
Temperature Inputs
Filter 12

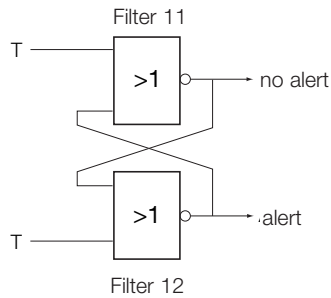
--> No  Mode-A  Thres-A  Mode-B  Thres-B  Effect
      1    <    25 C    off      40 C    thru
      2  off    40 C    off      40 C    off
      3  off    40 C    off      40 C    off
      4  off    40 C    off      40 C    off

Description of No 1 : temperature 1
```

```
Filter Configuration
Filter 12

[D] Description      : lower threshold
[E] Effect           : invert
[S] SNMP Trap       : no
[L] LED Warning      : no
[B] Buzzer Warning   : no
[P] Message Priority : none
[C] Confirmation     : disabled
[R] Reactivation Time : 0 s
```

Two filters are required for this
(copy of an RS flip-flop using NOR
gate array).



Feedback Inputs Filter 11					
No	From Filter	Delay Time	Pass Condition	Hold Time	Effect
--> 1	12	*no delay*	conditional	*no hold*	thru
2	*no filter*	*no delay*	thru	*no hold*	off

Temperature Inputs Filter 11					
No	Mode-A	Thres-A	Mode-B	Thres-B	Effect
--> 1	>	37 C	off	40 C	thru
2	off	40 C	off	40 C	off
3	off	40 C	off	40 C	off
4	off	40 C	off	40 C	off

Description of No 1 : temperature 1

Filter Configuration Filter 11	
[D] Description	: upper threshold
[E] Effect	: invert
[S] SNMP Trap	: no
[L] LED Warning	: no
[B] Buzzer Warning	: no
[P] Message Priority	: none
[C] Confirmation	: disabled
[R] Reactivation Time	: 0 s

Digital Outputs					
No	Description	Filter(s)	Logic	Effect	State
1	fan	x	or	thru	open
2	alarm	x x	or	thru	open
--> 3	fan 2	x	and	thru	open
4	Output 4	*none*	and	off	open

[D] Description
[F] Filter
[L] Logic
[E] Effect

[-] Previous Output
[+] Next Output

**Caution!**

If, during operation, the "Power" LED goes out or smoke or an abnormal smell is ascertained,

- Unplug the power cable.
- Please contact your dealer.

In the event of malfunctions**System no longer starts.**

- Check whether your system is properly set up (► 3).

Cause: Current operating software faulty.

Remedy:

- Ensure that a correctly configured (► 4.1.2) terminal is connected to the COM interface on the front of the device or on the back.
- Press the Reset key on the front of the device with a pointed object. The device will reboot.

The following boot messages appear on the terminal screen:

```
RMS-BIOS version 1.0.03
(c) infratec plus GmbH 1998
Memory Test : 00004096k Ok
Status of IDE : Ok
Drive 0 : MZX023157, (C/H/S) : 123/2/32
Drive 1 : Not detected.
Probing...[NE*000]
NE*000 base 0x0300, addr 00:10:6C:00:04:41
LILO
```

```
-----
RMS - Rack Monitoring System
System is ready to boot. You may choose your old image by
pressing 'o'.
-----
```

```
boot: <TAB>
r      RMS-Boot      o      RMS-Old
boot: o <ENTER>
Loading o
Linux version 2.1.97 (root@PC14) (gcc version 2.7.2.1) #7
SMP Tue May 5 10:26:58
Calibrating delay loop... 3.70 BogoMIPS
```

- If, during the boot: display, the keys **o** and **Return** on the terminal keyboard are pressed, the system boots with the last valid operating software (otherwise it boots again with the current version, which is faulty here).
- Load the current operating software from the Internet and update the system (► 4.4.3).

Cause: Auxiliary voltage interruption in connection with overload or short circuit in the sensor cable.

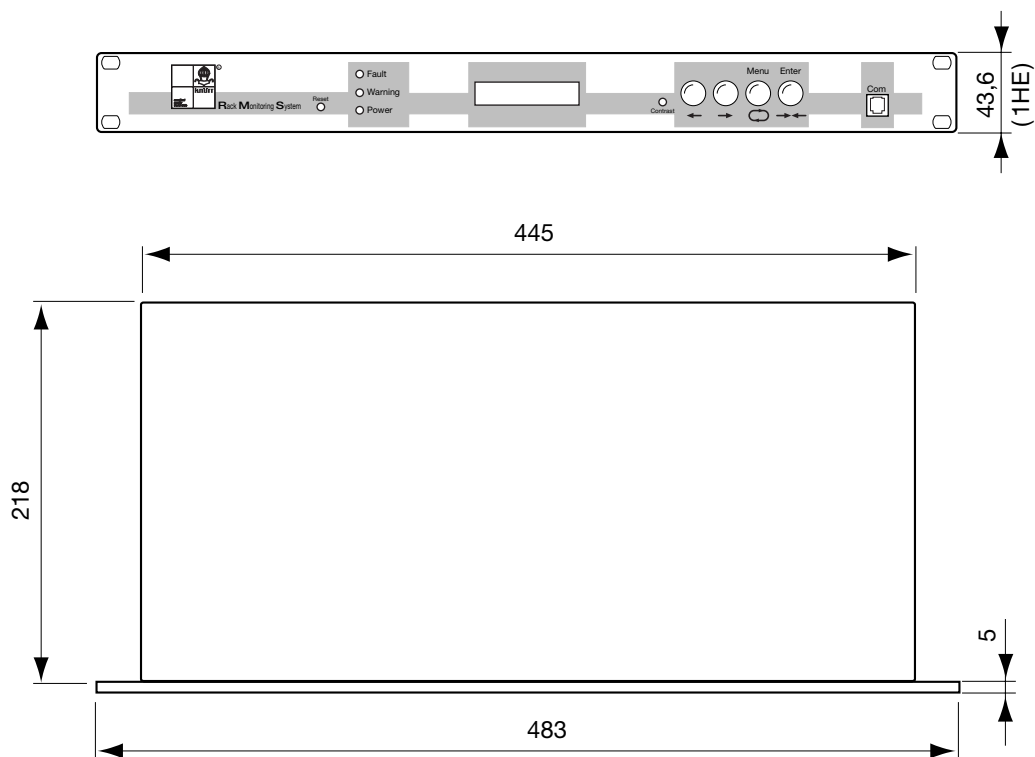
Remedy:

- Confirm the "Overload" message in the LC display with the ENTER key.
- Remove the overload or short circuit.
- Switch the auxiliary voltage back on in the "Aux.Volt." (► 4.3) menu with the ENTER key.
- Please contact technical support (► 1.4) or your dealer.

The "Fault" LED lights up, the sensors do not work, "Overload" is displayed in the LC display.

If the malfunction still occurs after performing the remedial measures



**RMS dimensions**

External (H x B x T in mm)

43.6 x 483 x 223

Mounting dimensions

(H x B x T in mm)

43.6 x 445 x 218

Weight

3.5 kg

Rated voltage

AC 110 – 230 V

Rated frequency

50/60 Hz

Rated current

200 mA

Protection class

I

Rated ambient temperature

35 °C

19" construction	19-inch construction is the common name for a standardised modular system for electronic devices and system parts. It specifies the width of the front panel of plug-in units and subracks.
Broadcast	General, network-wide information.
EMC	Abbreviation for Electromagnetic Compatibility.
FAQ	Abbreviation for Frequently Asked Questions. The most frequent questions and problems on a subject are listed under FAQ on the Internet.
Gateway	Junction between network segments or networks, also with different protocols.
HE	Height classification dimension of 44.45 mm = 1 HE (1 U). From 19" technology.
IP	Abbreviation for Internet Protocol. Standardised protocol for data transmission and on the Internet for addressing computers. An IP address consists of a combination of 4 Bytes written as follows: A.B.C.D (for example, 192.168.0.88). For more information, see RFC.
MIB	Abbreviation for Management Information Base. Data structure which contains information on the SNMP agent.
Netmask	Used to divide the IP address into network address and interface address.
RFC	Abbreviation for Request For Comment. RFCs are the official form of publication of Internet standards and other technical documents on the Internet. Rules for formatting and publishing RFCs themselves are laid down in RFC 1543.
SNMP	Abbreviation for Simple Network Management Protocol. Established protocol for the exchange of management information. Standard RFCs on SNMP are RFC 1155, RFC 1157 and RFC 1213.
TFTP	Trivial File Transfer Protocol Simple protocol in IP-based networks for sending and receiving files.
Trap	(Alarm) message from an SNMP agent to the management environment.
URL	Abbreviation for Universal Resource Locator. Full Internet address.
VDE	Abbreviation for Verband Deutscher Elektrotechniker (Association of German Electrotechnical Engineers).

A1

Conformity



Manufacturer

Infratec plus GmbH
Gesellschaft für innovative Datentechnik
Werner-von-Siemens-Straße 7
D-64625 Bensheim, Germany

Product designation

Data Terminal Equipment

Model

RackMonitoringSystem RMS

The product conforms to the regulations of the following EU Directive:
73/23/EEC.

The conformity of the product to the requirements of Directive 89/336/EEC was tested using the following standards: EN 50081-1; EN 55022/C1. B; EN 50082-1; EN 61000-4-2; EN 61000-3; EN 61000-4; EN 61000-6.

Bensheim, 1998

Dipl.-Ing. (FH) Karlheinz Knapp

The tests were carried out by
the following test company:

EMK Elektro-Mechanische Komponenten GmbH
Bunsenstraße 30
D-64293 Darmstadt, Germany

Accredited by: Deutscher Akkreditierungsrat (German
Accreditation Council)

Accreditation number: DAT-P-057/96-00

This declaration certifies conformity with the
stated Directives, but is no guarantee of features
in pursuance of the German Product Liability Act.
The safety information in the supplied product
documentation must be observed.

Year of first CE marking: 1998

Marks Licence

VDE



Tested and certified pursuant to

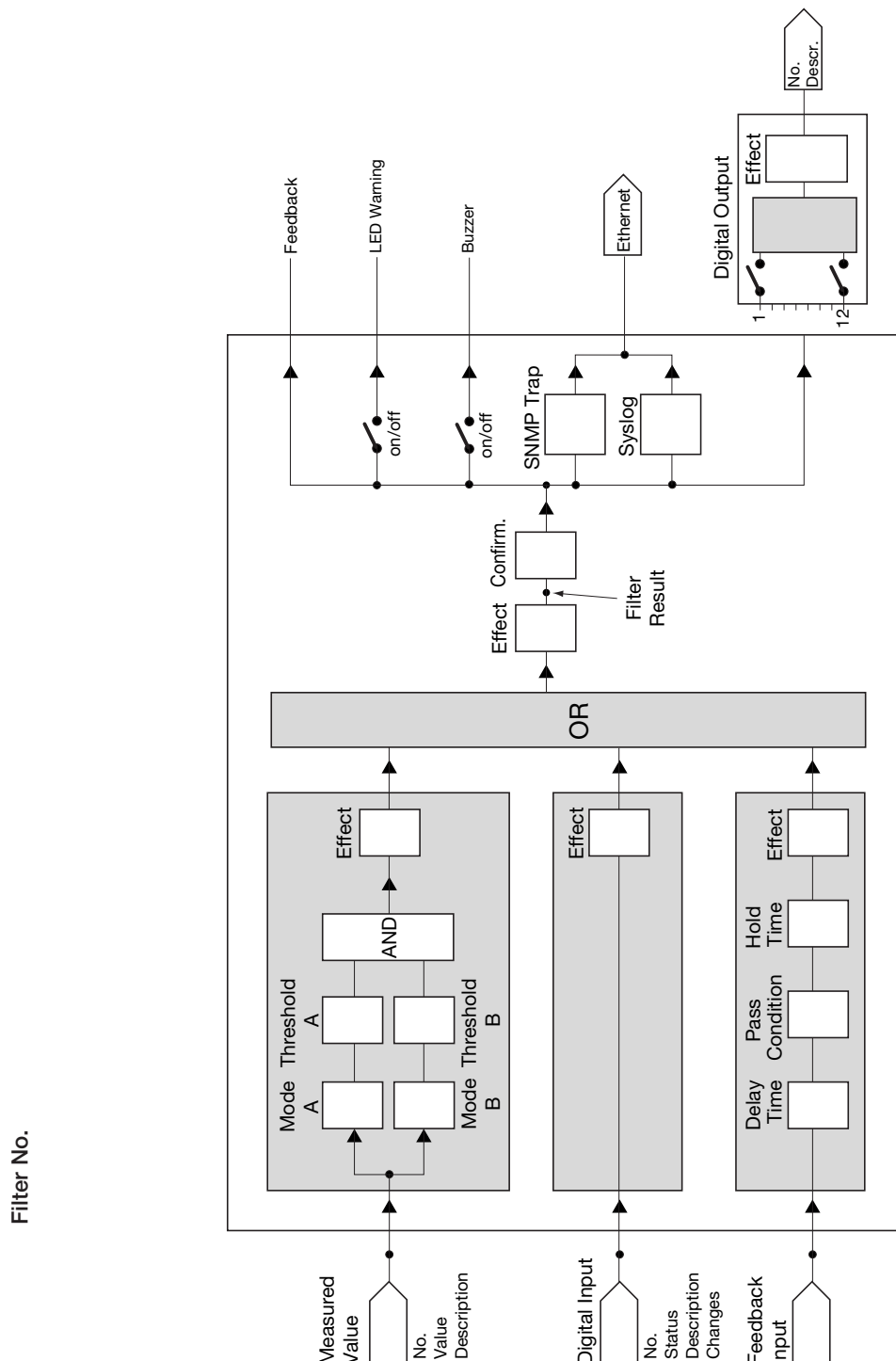
DIN EN 60950 (VDE 0805): 1997-11 + A11:1998-08
EN 60950: 1992 + A1, A2: 1993 + A3: 1995 + A4, A11: 1997
IEC 950: 1991 + A1: 1992 + A2: 1993 + A3: 1995 + A4: 1996

Registration number: 113639

A2

Documentation of the system configuration

- Mark the cables of your RMS at both ends clearly with meaningful markings.
Use cable binders with marking areas or labels with sealing film.
- The following block diagram (master) can be used for documentation of the filter configuration



A3

Explanation of the MIB for RMS

Structure of the MIB

Legend for the following tables:

INT	Integer
CNT	Counter
DS	Display String
OS	Octet String
TT	TimeTicks
RO	Read Only
RW	Read Write

Objects under rmssystem (1.3.6.1.4.1.2769.10.1)

For example:

Reset RMS:
1.3.6.1.4.1.2769.10.1.4.0 := 2

The RMS can be accessed under the OID 1.3.6.1.4.1.2769.10 (iso.org.dod.internet.private.enterprises.knuerr.rms)

```

10 rms
  1 rmssystem
  2 input
    1 digitalInTable
    2 alertInTable
    3 upsInTable
  3 output
    1 outputTable
    2 outputLogicTable
  4 temp
    1 tempTable
  5 humid
    1 humidTable
  6 mains
    1 mainsTable
  7 filter
    1 filterTable
    2 filterDigitalInTable
    3 filterAlertInTable
    4 filterUPSINTable
    5 filterTempTable
    6 filterHumidityTable
    7 filterMainsTable
    8 filterFeedbackTable
  8 message
    1 messageTable
  9 user
    1 userTable
20 aux
21 icc
    
```

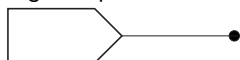
The complete MIB in ASN.1 notation is on the enclosed CD-ROM as the file „rms.mib“.

	Variable	Type	Range of values	Access
1	systemVersion	DS		RO
2	systemSNMPsave	INT	{ default (1), save (2) }	RW
3	systemMsgToSyslog	INT	{ msglog-off (1), msglog-on (2) }	RO
4	systemReset	INT	{ default (1), reset (2) }	RW
5	systemSNMPaccess	INT	{ readonly (1), readwrite (2) }	RO

Objects under digitalInTable

(1.3.6.1.4.1.2769.10.2.1)

Digital Input



No./Index
Description
State
Last Change
Changes
(Reset)

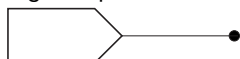
For example:

Number of changes of input 9:
1.3.6.1.4.1.2769.10.2.1.1.5.9

Objects under alertInTable

(1.3.6.1.4.1.2769.10.2.2)

Digital Input



No./Index
Description
State
Last Change
Changes
(Reset)

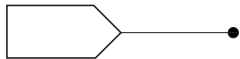
For example:

Reset sensors on ALERT IN 2:
1.3.6.1.4.1.2769.10.2.2.1.6.2 := 2

Objects under upsInTable

(1.3.6.1.4.1.2769.10.2.3)

Digital Input



No./Index
Description
State
Last Change
Changes
(Reset)

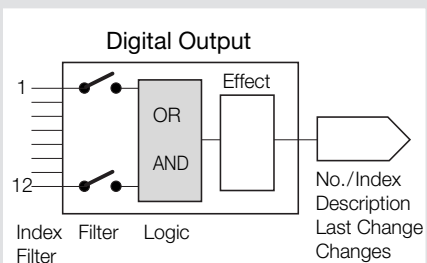
Variable	Type	Range of values	Access
1 digitalInEntry			
1 digitalInIndex	INT		RO
2 digitalInDescr	DS		RW
3 digitalInState	INT	{ off (1), on (2) }	RO
4 digitalInLastChange	TT		RO
5 digitalInChanges	CNT		RO

Variable	Type	Range of values	Access
1 alertInEntry			
1 alertInIndex	INT		RO
2 alertInDescr	DS		RW
3 alertInState	INT	{ off (1), on (2) }	RO
4 alertInLastChange	TT		RO
5 alertInChanges	CNT		RO
6 alertInReset	INT	{ default (1) alertIn-reset (2) }	RW

Variable	Type	Range of values	Access
1 upsInEntry			
1 upsInIndex	INT		RO
2 upsInDescr	DS		RW
3 upsInState	INT	{ off (1), on (2) }	RO
4 upsInLastChange	TT		RO
5 upsInChanges	CNT		RO

Objects under outputTable

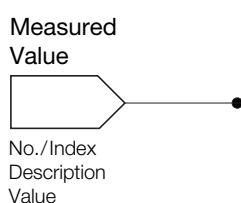
(1.3.6.1.4.1.2769.10.3.1)



For example:
Read out description of DIGITAL
OUT 4:
1.3.6.1.4.1.2769.10.3.1.1.2.4

Objects under outputLogicTable

(1.3.6.1.4.1.2769.10.3.2)



Objects under tempTable

(1.3.6.1.4.1.2769.10.4.1)

For example:
Read out current temperature of
temperature sensor 1:
1.3.6.1.4.1.2769.10.4.1.1.3.1

Objects under humidTable

(1.3.6.1.4.1.2769.10.5.1)

Variable	Type	Range of values	Access
1 outputEntry			
1 outputIndex	INT		RO
2 outputDescr	DS		RW
3 outputEffect	INT	{ off (1), on (2), thru (3), invert (4) }	RW
4 outputLastChange	TT		RO
5 outputChanges	CNT		RO
6 outputLogic	INT	{ and (1), or (2) }	RW
7 outputState	INT	{ open (1), short (2) }	RO

Variable	Type	Range of values	Access
1 outputLogicEntry			
1 outputLogicOutputIndex	INT		RO
2 outputLogicFilterIndex	INT		RO
3 outputLogicFilter	INT	{ off (1), on (2) }	RW

Variable	Type	Range of values	Access
1 tempEntry			
1 tempIndex	INT		RO
2 tempDescr	DS		RW
3 tempValue	INT	{ no-sensor (665) }	RO

Variable	Type	Range of values	Access
1 humidEntry			
1 humidIndex	INT		RO
2 humidDescr	DS		RW
3 humidValue	INT	{ no-sensor (255) }	RO

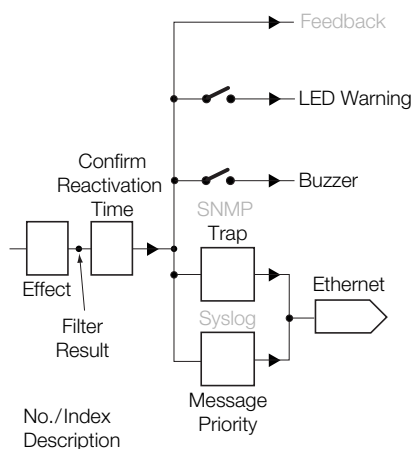
Objects under mainsTable

(1.3.6.1.4.1.2769.10.6.1)

	Variable	Type	Range of values	Access
1	mainsEntry			
1	mainsIndex	INT		RO
2	mainsDescr	DS		RW
3	mainsValue	INT		RO

Objects under filterTable

(1.3.6.1.4.1.2769.10.7.1)

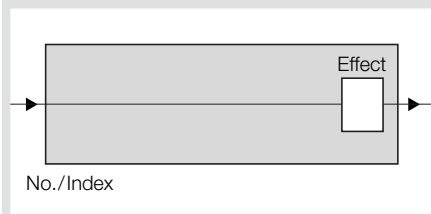


For example:

Allow confirmation for filter 4:

1.3.6.1.4.1.2769.10.7.1.1.9.4 := 2

	Variable	Type	Range of values	Access
1	filterEntry			
1	filterIndex	INT		RO
2	filterDescr	DS		RW
3	filterResult	INT	{ false (1), true (2) }	RO
4	filterEffect	INT	{ off (1), thru (2), invert (3) }	RW
5	filterTrap	INT	{ no (1), once (2), repeat (3) }	RW
6	filterLED	INT	{ no (1), yes (2) }	RW
7	filterBuzzer	INT	{ no (1), yes (2) }	RW
8	filterMessagePriority	INT	{ no-message (1), priority-warning (2), priority-critical (3) }	RW
9	filterConfirmation	INT	{ disabled (1), enabled (2) }	RW
10	filterReactivationTime	INT	{ no-timeout (1) }	RW
11	filterConfirm	INT	{ not-confirmed (1), confirmed (2) }	RW



Objects under filterDigitalInTable

(1.3.6.1.4.1.2769.10.7.2)

For example: Make DIGITAL In input 2 act on filter 6:

1.3.6.1.4.1.2769.10.7.2.1.3.6.2 := 2

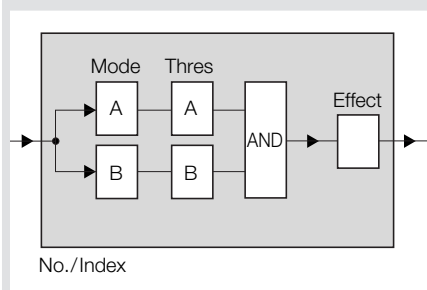
	Variable	Type	Range of values	Access
1	filterDigitalInEntry			
1	filterDigitalInIndex	INT		RO
2	filterDigitalInPort	INT		RO
3	filterDigitalInEffect	INT	{ off (1), thru (2), invert (3) }	RW

Objects under filterAlertInTable

(1.3.6.1.4.1.2769.10.7.3)

Objects under filterUPSInTable

(1.3.6.1.4.1.2769.10.7.4)



Objects under filterTempTable

(1.3.6.1.4.1.2769.10.7.5)

For example:
Stop Temperature/Humidity input 2
acting on filter 1:
1.3.6.1.4.1.2769.10.7.5.1.3.1.2 := 1

Objects under filterHumidityTable

(1.3.6.1.4.1.2769.10.7.6)

Variable	Type	Range of values	Access
1 filterAlertInEntry			
1 filterAlertInIndex	INT		RO
2 filterAlertInPort	INT		RO
3 filterAlertInEffect	INT	{ off (1), thru (2), invert (3) }	RW

Variable	Type	Range of values	Access
1 filterUPSInEntry			
1 filterUPSInIndex	INT		RO
2 filterUPSInPort	INT		RO
3 filterUPSInEffect	INT	{ off (1), thru (2), invert (3) }	RW

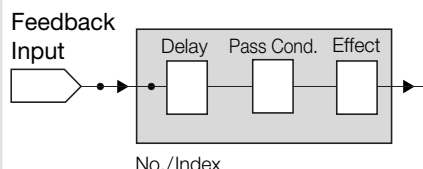
Variable	Type	Range of values	Access
1 filterTempEntry			
1 filterTempIndex	INT		RO
2 filterTempSensor	INT		RO
3 filterTempEffect	INT	{ off (1), thru (2), invert (3) }	RW
4 filterTempATHres	INT		RW
5 filterTempAMode	INT	{ off (1), greater (2), less (3) }	RW
6 filterTempBThres	INT		RW
7 filterTempBMode	INT	{ off (1), greater (2), less (3) }	RW

Variable	Type	Range of values	Access
1 filterHumidityEntry			
1 filterHumidityIndex	INT		RO
2 filterHumiditySensor	INT		RO
3 filterHumidityEffect	INT	{ off (1), thru (2), invert (3) }	RW
4 filterHumidityATHres	INT		RW
5 filterHumidityAMode	INT	{ off (1), greater (2), less (3) }	RW
6 filterHumidityBThres	INT		RW
7 filterHumidityBMode	INT	{ off (1), greater (2), less (3) }	RW

Objects under filterMainsTable (1.3.6.1.4.1.2769.10.7.7)

Variable	Type	Range of values	Access
1 filterMainsEntry			
1 filterMainsIndex	INT		RO
2 filterMainsSensor	INT		RO
3 filterMainsEffect	INT	{ off (1), thru (2), invert (3) }	RW
4 filterMainsATHres	INT		RW
5 filterMainsAMode	INT	{ off (1), greater (2), less (3) }	RW
6 filterMainsBThres	INT		RW
7 filterMainsBMode	INT	{ off (1), greater (2), less (3) }	RW

Objects under filterFeedbackTable (1.3.6.1.4.1.2769.10.7.8)



Variable	Type	Range of values	Access
1 filterFeedbackEntry			
1 filterFeedbackIndex	INT		RO
2 filterFeedbackInput	INT		RO
3 filterFeedbackInFilter	INT		RW
4 filterFeedbackDelay	INT		RW
5 filterFeedbackPassCond	INT	{ thru (1), conditional (2) }	RW
6 filterFeedbackHold	INT		RW
7 filterFeedbackEffect	INT	{ off (1), thru (2), invert (3) }	RW

For example:
Feedback input 1 of filter 8 is only to
operate if the event is still applied:
1.3.6.1.4.1.2769.10.7.8.1.5.8.1 := 2

Objects under messageTable (1.3.6.1.4.1.2769.10.8.1)

For example:
Read out filter description from
message 5:
1.3.6.1.4.1.2769.10.8.1.1.3.5

Variable	Type	Range of values	Access
1 messageEntry			
1 messageIndex	INT		RO
2 messageFilter	INT		RO
3 messageFilterDescr	DS		RO
4 messageTime	TT		RO
5 messagePriority	INT	{ no-message (1), warning (2), critical (3) }	RO
6 messageAcknowledged	INT	{ not-acknowledged (1), acknowledged (2) }	RW

Objects under userTable

(1.3.6.1.4.1.2769.10.9.1)

	Variable	Type	Range of values	Access
1	userEntry			
1	userIndex	INT		RO
2	userName	DS		RO
3	userRight	INT	{ readonly (1), read-write (2) }	RO
4	userChipcardKey	DS		RO
5	userChipcardAccess	INT	{ denied (1), granted (2) }	RO

Objects under aux

(1.3.6.1.4.1.2769.10.20)

For example:

Read out name of current aux device:

1.3.6.1.4.1.2769.10.20.2.0

	Variable	Type	Range of values	Access
1	auxDevice	INT	{ no-device (1), chipcardreader (2) }	RO
2	auxDeviceName	DS		RO

Objects under icc

(1.3.6.1.4.1.2769.10.21)

For example:

Read out opening time of door opener:

1.3.6.1.4.1.2769.10.21.6.0

	Variable	Type	Range of values	Access
1	readerConnected	INT	{ no (1), yes (2) }	RO
2	readerCardInside	INT	{ no (1), yes (2) }	RO
3	readerCardKey	DS		RO
4	readerLEDcolor	INT	{ red (1), green (2) yellow (3) }	RO
5	openerLogic	INT	{ break (1), make (2) }	RO
6	openerOpenTime	INT		RO
7	openerState	INT	{ closed (1), open (2) }	RO

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Mechanik für die Elektronik AG

Postfach 82 03 69, D-81803 München
Schatzbogen 29, D-81829 München
Telefon +49 - (0) 89 - 4 20 04 - 0
Fax +49 - (0) 89 - 4 20 04 - 1 18
Internet <http://www.knuerr.de>